

# AMERICAN VETERINARY REVIEW.

SEPTEMBER, 1914.

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## EDITORIAL.

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### EUROPEAN CHRONICLES.

BOIS JEROME BY VERNON (EURE.), August 15, 1914.

TENTH INTERNATIONAL VETERINARY CONGRESS—Exactly two weeks ago our confrères from all over the world were slowly gathering towards London for this great event and to celebrate the tenth anniversary of the creation that the veterinary profession owes to Professor John Gamgee.

Two weeks ago a terrific alarm spread all over Europe, a frightful threat of war, in which the six largest countries of the old world were to take place, resounded.

The whole of Europe was mobilizing their various armies!

Feast of peace in England; terrible prospect of war on the continent!!

To-day as I send this chronicle, which may be arrested on its way to America, I am away from the terrible spasm which shakes the entire European world and I am ignorant of what takes place around me. Of the tenth international veterinary congress I cannot give any news.\* I have none. I cannot get any, no matter how my plans have been arranged.

I have, however, great pleasure in sending some little information, which will bring some joy to few at home.

The two parties of American veterinarians that crossed the big pond to attend the congress arrived safe in Paris. Al-

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\* See complete report of Congress on page 694; and story of European tour on page 678.

though they were separated, they both called at the various places of interest that Dr. Eichhorn had arranged for his trip, Alfort, Pasteur Institute, visited at Garches, the great laboratory of all the Pastorian preparations, etc., etc. At Alfort they were the object of a great reception and their visit most complementarily alluded to in the French professional paper, the *Recueil*.

Personally I had the ever to be remembered call of two of the gentlemen of the party that left New York on the *St. Paul*, Drs. Ackerman and Mayo. It was to me a consoling satisfaction, being kept away from the congress. To both I again send thanks for their coming here.

I hope that all our confrères have had no trouble to go home and that their sojourn in London has been as pleasant as I am certain it must have been from a scientific point of view.

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Paris, July 15, 1914.

**RACHIANESTHESIA.**—The subject of *rachianesthesia in small domestic animals* (dogs and cats) has been the subject of reviews, first in the *Journal de Zootechnic* and then in the *Bulletins de la Société Centrale*.

In veterinary medicine, especially with those animals, general anesthesia is sometimes dangerous, particularly in old subjects; hence the indications for resorting to regional anesthesia, which fulfills all the requirements.

In 1898 Sicard injected cocaine in the sub-arachnoid space of the lumbar region. His *modus operandi* was complicated and not practical. The same year Bier obtained similar results by injection on a level with the lumbo-sacral space. His method gave excellent results and found its application for all operations involving the hind quarters of the animal—and also the thorax and forelegs when the injected dose was large.

Two years later Cuillé and Sandrail made the injection in

the lumbo-sacral space, at the intersection of a line uniting the iliac angles from their junction with the median plane of the body. They introduced the needle perpendicularly, slowly and gradually. Two drops of cephalo-rachidian fluid escaping through the trocar.

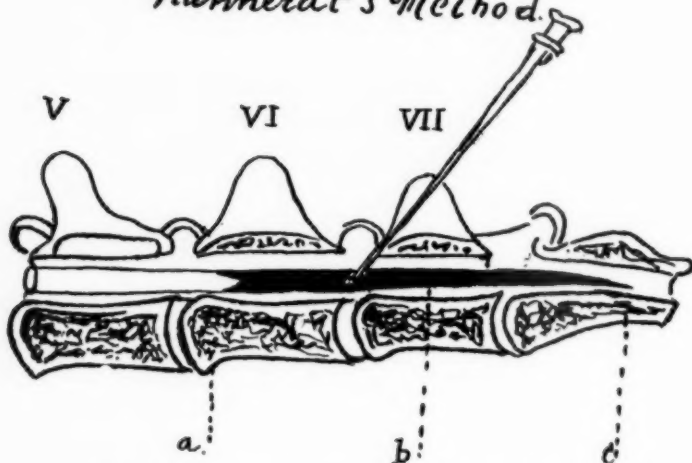
Great flexion of the vertebral column assists the introduction of the needle. Then Messrs. E. and L. Lepinay selected for suitable place of puncture the sixth interlumbar space, on the median line, following the anterior border of the spinous process of the seventh lumbar vertebra. This is, according to Cadeac, a dangerous method on account of the great difficulty to enter the rachidian canal. It demands a great deal of practice and a thorough manipulation.

Another method is presented by a fourth year student of Alfort, Mr. Mennerat which has been the object of a long report before the Société Centrale by Prof. Coquot.

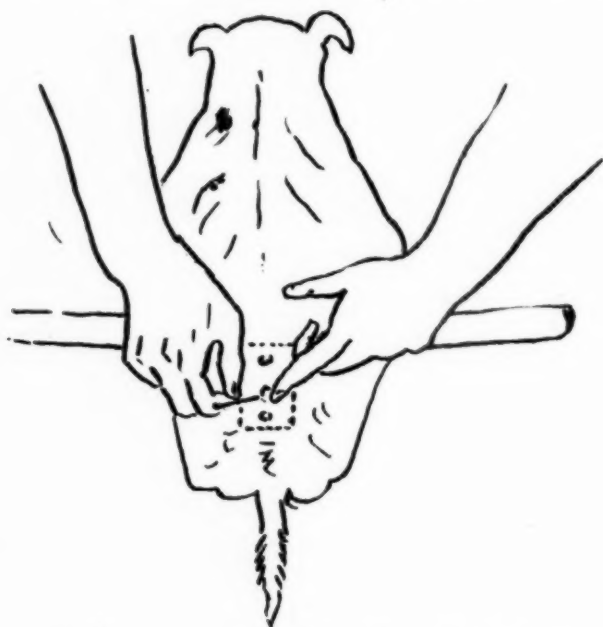
Mennerat performs the puncture between the sixth and seventh lumbar vertebra, but instead of introducing the needle on the median line, he pushes it *on the side of the spinous process* of the seventh vertebra and necessarily there reaches in the dural sac, whose diameter there corresponds sensibly to that of the vertebral foramen.

To operate Mennerat places his subject on a table in the sterno-abdominal position, the hind quarter hanging on one of the borders of the table, the hind legs are brought forward and tied together above the hocks. In this position the lumbo-sacral region is perpendicular to the ground. When all surgical preparations are completed, the needle is introduced obliquely from above to below, from backwards forwards, from outside inwards. It is pushed in slowly, passing through the skin, lumbar aponeurosis, long dorsal muscle, inter-lamellar ligament, and finally the dural sac. Rarely does cephalo-rachidian fluid appear, but as the point of the needle may irritate without hurting some of the final ramifications of the cord, the animal will struggle some. This is an indication that the needle is in good position and that the injection can be made.

### *Mennerat's Method.*



*a - End of the cord - b - End of dural sac - c, dural sac.*



*Puncture - 7<sup>th</sup> lumbar vertebrae.*

The anesthetics used in latter years are cocaine, stovaine novocaine and Tropa-cocaine. Dr. Corning, of New York, has



used a mixture of Tropa-cocaine and suprarenine. Mr. Mennerat has experimented his method with cocaine, stovaine and novocaine and he has obtained excellent results.

The doses, *modus operandi* and length of duration of the anesthetic effects are known to our readers.

The applications of Mennerat methods for the rachianesthesia of cats are very similar to those resorted to for dogs.

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ANTITUBERCULOUS IMMUNITY.—In their April issue, the *Annales de l'Institut Pasteur* contains several communications of great interest.

Prof. A. Calmette and C. Guérin have one contribution to the study of *antituberculous immunity* of bovines, in which they relate the experiments they have made with the constituting elements of the bacillus of Koch, viz.: The lipoids, tuberculines and bacillar protoplasm, in relation with the immunity. The conclusions of these experiments are resumed as follows:

1. Lipoids, soluble in boiling acetone and benzine, extracted from the tuberculous bacillus, have no preventing action.
2. (Brute or precipitate) tuberculines, such as are ordinarily prepared in laboratories have a certain action, but it is reduced to a simple lowering in the duration of the evolution of the infection.
3. Bacilli killed by heat, taken from ordinary cultures on glycerinated media, have a weak preventive power, which results from the small quantity of tuberculine held by them or detained in the microbial bodies.
4. The intact bacillar protoplasm, from dead bacilli free from tuberculine, is without any immunizing action.
5. The lasting endurance of bovines towards tuberculous infection is function of the presence of living bacilli in the organism of these animals. The saprophytic life of the tuberculous bacillus in the economy invites the elaboration of immuniz-

ing soluble products, different from those obtained artificially in the media of culture.

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In the same number of *Pasteur's Annales*, there is the record of an experimental study on the *cenurosis of rabbit*, by Profs. Henry and Cinca; on the *cocobacillus of locust*, by Dr. T. d'Herelle; on *trials* made for their extermination; and on *experimental researches* made on a therapeutic method based on the stimulation of phagocytes, by T. Yamanouchif, and finally one on the *influence* of lecithine and cholesterine upon the toxicity of eggs and of the ovaries, by Dr. Henri Vignes.

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In the *Presse Medicale*, Prof. E. Marchoux has an article on the *Lepra of Rats*, which from the point of view of comparative pathology is of great interest. Alluding to the difficulties presented in the experimental study of human lepra, and referring to the discovery of Armauer Hansen, who in 1868 gave his name to the bacillus which by many has been accepted as the specific germ of the disease in the human being, Marchoux has made a study of lepra in rats and found it the image of that of man, as far as symptoms, pathogeny, march and termination.

A physician of Odessa in 1903, Dr. Stefansky, in examining every day a great number of rats, discovered in sewer animals a new disease, caused by an acido-resisting bacillus, which multiplied in great quantity in the lymphatic glands and under the skin of these animals. The disease almost special to the *Mus. norvegicus*, is as common as the rodent is.

The disease presents itself under two forms, one essentially glandular and the other musculo-cutaneous. This last is a more advanced stage of the first.

The glandular form, the most common, is not manifested outside of the body by any sign and discovered only as a surprise

of post mortem. The lymph glands are often enlarged, hard, whitish and may reach large dimensions. It is not, however, a typical symptom, as infected rats may also have relatively small glands and again healthy rats may have large ones. All the glands of the body may be attacked or again only a few.

The musculo-cutaneous form is more rare. The animals are cachectic, move with difficulty and allow themselves to be caught with the hand. The skin is thick, bosselated, very adherent to the tissues underneath. It presents nodules of dimensions which vary up to that of a pigeon's egg. These are more specially localized on the head, the external face of the legs and the flanks. Besides these neoplastic formations there are alopecio patches of various sizes. The skin is often ulcerated. In the internal organs there are no macroscopic lesions well marked, with the exception in some cases of small whitish nodosities on the peritoneum, the liver and the spleen; some rats become blind.

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After this concise description of that murine lepra, Marcoux continues by the examination of the pathological anatomy, the study of the pathogenous agent, the bacillus of Stefansky, the etiology, the transport of the germs by parasites, lice, fleas and acarians. He examines the subject of the contamination through the mucous, considers the benignant and malignant forms of the disease and finally arrives at his conclusions.

"From the study of murine lepra may be derived a certain number of conclusions which could be applied to the similar disease which affects human beings. The analysis of the facts obtained to this day, do not show any disaccord with our experimental observations, on the contrary they corroborate them very happily."

"To resume, we are authorized to say that: 1. The specific bacillus is a delicate germ. 2. It is frequently inoculable to subjects which are sensitive to it. 3. Stinging insects do not transport the disease. 4. Sarcoptes, demodex and flies may play

an accessory part. 5. The germs ordinarily enter the organism through a skin abrasion, coming in contact with septic products. 6. Healthy and sound preputial mucous membrane allows the virus to enter. 7. Lepra that can be diagnosed clinically is rare when compared with the mild disease. 8. This last can remain unknown until death takes place. 9. It may get well spontaneously. 10. It is transformed into manifest lepra by the influence of secondary infections or of physical running down of the organism. 11. The hygienic treatment, applicable to tuberculous subjects, is the one for leprous. 12. Prophylaxy consists in avoiding any soiling of the skin of healthy individuals by specific germs."

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WATER IN VETERINARY PRACTICE.—There is no doubt that water in all the peculiar conditions it may be used does occupy in veterinary practice an important place, a place which for some is considered as an abuse. Such is the case with Doct. Fontaine, an army veterinarian, who in the *Revue Veterinaire Militaire* has recorded the very complete history of the studies he has made on the subject and considered all the cases in which water is used in veterinary medicine.

In surgical practice, asepsy is realized by boiling the instruments, by washing the hands with sublimate solution, 1/1000, by an application of tincture of iodine or iodided chloroform, 1 to .20—, to the field of operation. Surgical wounds are protected with a dry dressing.

In the washing of wounds, the abuse of water is dangerous. In case of recent traumatism, if it is done carelessly, it becomes a cause of infection; a simple application of tincture of iodine or of aloes is sufficient, followed by a protecting envelope, if the region permits it; an absorbing powder will also allow the isolation of the wound from the outside.

In cases of anfractuous wounds, cleaning with a douche is followed by warm solution of sublimate of 1/1000 and a moist wadding dressing.

With a wound on the road to cicatrization, washings are improper. After evacuation of the pus, an absorbing powder or finely cut tourbe wadding, will form a crust under which cicatrization will be obtained. Sterilized antiseptic ointments, in tubes, are not yet used in general practice.

Moist dressing with water at 40 degrees and used as reducing the congestion and acting as sedatives, give good results.

The author treats foot injuries, as those of other regions, with a dressing but he excludes baths.

The simply hygienic use of water gives also room for abuses. It often promotes superficial inflammation of the dermis. The soaking of the feet is less used and warm foot baths at 40 degrees are used in lameness due to congestion.

Continued irrigation is used only exceptionally, as it requires great watching and seems to arrest the cicatrization of large wounds.

Aqueous solutions are inefficacious in the treatment of cutaneous affections and may promote the generalization of those diseases.

Finally, general balneations used in the treatment of internal diseases seems to be difficult to apply properly in ordinary conditions of practice.

The conclusion of the work is that in veterinary practice too much washing is used or it is badly applied.

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BIBLIOGRAPHY: *Congres International de Pathologie Comparee* (International Congress of Comparative Pathology) published by Masson & Co.

It is already eighteen months since that event took place. The first of its kind, due to the exertions of Doct. Grollet, the General Secretary of the Society of that name in Paris, that Congress was, as I have already reported in the Chronicle of January and February of last year, an immense success, nearly one thousand scientists from every country of the world having

registered their names as members. South America distinguishing herself by the large number of her representatives—while North America had only three, one from Washington, one from New York City and one from Cornell University, and yet our confrères of the United States are not ignorant of the importance of comparative pathology. Societies, laboratories and schools with similar names are found in them. Certainly another Congress will find them more largely represented.

The second volume of the transactions of the Congress of 1912 has just been issued. It forms a large book of just 1,050 pages, handsomely printed, with numerous illustrations and containing the records of papers and communications, which were presented and read during the several days that the gatherings lasted. Among the communications from the American members are: One from Director Veranus A. Moore of Cornell University entitled: *Study of the relations between the physical condition of tuberculous cattle and the elimination of the tuberculous bacteria*; one from Dr. Erwin F. Smith, Chief of the Laboratory of Vegetal Pathology in Washington, entitled "*Is cancer a disease of the vegetal kingdom?*"

It is not possible to refer to all the contents of this second volume. Its reading will prove of great value. In fact, while one may regret that so long a time has passed between the congress and the publication of its labors, every one interested in the immensely broad field of comparative pathology and its various divisions, will read this second volume with interest and no doubt look for the possibility of an early repetition of another meeting. And yet how to expect it, with the number of Congresses of specialties, I may say, that are already established and that after all, are more or less but branches of the event of 1912.

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PARASITES AND PARASITIC DISEASES OF THE DOG AND OF THE CAT. (*Parasites et maladies parasitaires du chien et du*



*chat*), by Professor L. G. Neumann of the Toulouse Veterinary School.

Asselin & Howzeau, the publishers of this work, have favored me with a copy and it is with pleasure that I call the attention of the readers of the REVIEW to it.

"Its publication was justified by the importance of the parasitic diseases in the pathology of the carnivorous domestic animals. The dog is the host of a profusion of animal or vegetal species, the great number of individuals in each parasitic species, the danger that many of these present in relation to the health of the dog, sometimes to that of man, and often to that of domestic herbivorum; the analogy that several of the parasites of dogs have with those of men; the light that the knowledge of their development may throw upon human parasitology and finally the interest that many people have for their dogs." All those are the reasons which have induced Prof. Neumann to write the work.

It was indeed necessary to gather together all the facts relating to the parasitic diseases of dogs and cats, and present them to all those who may have an interest of any kind with those animals. The work was a complicated one. What is known of those facts, very numerous as they exist, are spread all over in scientific and veterinary writings; and collecting them was a difficult and laborious task. No one could do it better than Prof. Neumann, who is already well known by his works on similar subjects.

The material is divided into eight chapters, parasites of the skin, of the connective tissues and muscles, of the digestive canal, of the serous membranes, of the respiratory system, of the circulatory, of the brain and organs of senses, and of the genito-urinary apparatus.

In these chapters the author has given description in proportion with the pathogenous action of each parasite, and the description is made so simple and clear that one can readily become familiar with the characters presented. There are added in the work 156 illustrations, many of which are original. After each



description of the parasite, the symptoms which accompany their presence are given and also the therapeutic and prophylactic treatment indicated for them. There is also a little appendix on the parasites of ferret.

If one considers that such subjects are sporotrichosis, wormicular dermatosis, distomiasis, dithyridiosis, bilharziosis, filariosis, protozoosis such as piroplasmosis, trypanosomiasis, leishmaniosis, toxoplasmosis, hemogregarinosis, form a very important part of this new book, he can appreciate its value and understand why it can be considered as a valuable contribution to the progress of parasitology.

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MEDECINE CANINE (*Canine Medicine*). This is presented as the preceding by the old French veterinary publishing house of Asselin & Howzeau of Paris. It is the third edition, small octavo of over 372 pages and 69 illustrations. The authors of this little *multum in parvo* are Profs. P. J. Cadiot and F. Breton.

The little volume is a treatise of pathology and of surgery, both offering material for two parts, the first for medicine, the second for surgery.

In the first, the reader has presented to him the diseases of all the various apparatus of the entire organism; all of which are considered in the first 170 pages. Then come the infectious diseases, the skin affections, those of the eye and of the ear, and finally the various surgical diseases.

In this vast amount of material covering such limited space, a little over 300 pages, the authors had to resort to the greatest brevity and be very limited in the consideration of every portion of that first part.

In the second part, which treats of surgical subjects, the reader's attention is called to the most common operations likely to be required with canines—trephining of the nasal cavities, operation upon the eye, oesophagotomy, hernias, operations upon the stomach and the intestines, or again upon the urinary and

genital organs. A special chapter is given to intestinal sutures, etc.

An appendix is added to these two chapters, considering reproduction, parturition, rearing and feeding with brief indications on the age. It completes the work.

It is peculiar to notice how Profs. Cadiot and Breton must have worked to be able to gather so well in such space the amount of material which their little book contains. Of course it had to be concise, and the consideration of each disease had to be relieved of all unnecessary phraseology, and on that account some very important portions had to suffer from want of more space. Notwithstanding that, if such as ascites, mammitis, nephritis appear as having been treated rather too briefly, that of tuberculosis has on the contrary been presented comparatively in a sufficiently complete manner, taking in consideration the extensive experience that both authors have had with that disease.

The book is perhaps too condensed it is true, it is difficult to admit that such a broad subject as canine pathology could receive proper justice in such limited space and yet the fact that it has reached a third edition is sufficient evidence to justify the interest that it will offer to students and veterinary practitioners, and an early fourth edition can be looked for in the near future.

A. L.

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### THE ONE THING LACKING.

#### PRESIDENT WILSON'S WISE WORDS ON "A NEW TEMPER" APPLIED TO OUR CASE.

The Chicago *Herald*, in a recent editorial, said that President Woodrow Wilson's letter regretting the rejection by the Senate of Thomas D. Jones, as a member of the reserve board contains a paragraph which no clear-headed, sound-hearted lover of his country could read unmoved:

"I believe that the judgment and desire of the whole country cry out for a new temper in affairs. The time has come

when *discriminations against particular classes of men* should be absolutely laid aside and discarded as unworthy of the counsels of a great people. The effort for genuine social justice, for peace, the peace which is founded on common understandings and for prosperity, the prosperity of co-operation and mutual trust and confidence, should be a united effort without partisan prejudice and *class antagonism*. It is only of such just and noble elements that the welfare of a great country can be compounded. We have breathed already too long the air of suspicion and distrust. *The progress of reform is not retarded by generosity and fairness.*"

It is an open secret that the President's words of wisdom were meant as a criticism of Senator G. M. Hitchcock of Nebraska, whose temper, during the time of consideration of Mr. Jones for appointment brought out the letter from which we are quoting. President Wilson's letter was immediately proclaimed by the press of the whole country as one of the strongest appeals to the best that there is in American patriotism that has ever been penned. The fine temper of the President; the loftiness of his language; his ardent appeal to clear-headed, sound-hearted patriotism, won him scores of friends that he never had before. In his letter the President soars high above the mundane and paltry bickerings of those who opposed the appointment. Indeed, the President's letter will go down in the history of our times as a state paper ranking near to the best of John Jay, Alexander Hamilton, Thomas Jefferson and Abraham Lincoln, who are four of the greatest writers of state papers that America has produced.

Now it is a noteworthy fact that the very man so nobly, though indirectly, rebuked by the President for "discriminations against particular classes of men" which are "unworthy of the counsels of a great people," is the very man who has had the temerity in the Minority Report of the Senate Committee on Military Affairs, to oppose the Army Veterinary Service Bill, H. R. 4541. The President speaks boldly against such men as Senator Hitchcock, who make political capital out of dis-

criminations against particular classes of men. He tells us: "We have breathed already too long the air of suspicion and distrust. The progress of reform is not retarded by generosity and fairness."

Lay side by side the quotation we have made from President Wilson's letter of admonition and rebuke and the "Minority Views" of Senators Hitchcock and Thomas, the opposers of the bill. Read them both twice and see if the President's language is not applicable to these vapid and superficial "minority views."\*

#### MINORITY VIEWS.

"We regret that we cannot join our colleagues on the committee in favorably reporting S 4331 to consolidate the veterinary service in the Army. This bill is the product of fifteen years of agitation carried on very largely by The American Veterinary Association, having some 3,000 members scattered over the country. They originated it, they have advocated it, and they have pushed it because of the advantage it would bring to the veterinarians who would become its beneficiaries.

"It involves an increase in the cost of veterinary service of about 37 per cent. It makes some increase in the number of men employed as veterinarians and inspectors, but it makes a much larger increase in pay and in ultimate cost to the government by giving to some the rank of officers and by retirement with official rank. It is another step in the direction of loading down the military service with civilian attachments.

"It is easy to argue that these changes work for efficiency in the Army. Perhaps they do to some extent, but we think the claim is largely exaggerated, and that the real motive is to get a permanent place in the Government pay roll.

"If this bill passes we will have the spectacle of Army veterinarians at the age of sixty-two, practicing their profession comfortably and enjoying the Government retired pay. There is reason for retiring officers at a certain age and giving them retired pay because their military service has unfitted them for

\* Minority report published in August REVIEW on pages 554-5 and replied to by Garrison Steele.

any practical work in life. But in our opinion it is a bad practice to take professional men and treat them in the same way. They do not need the benefits of retirement on pay any more than professional men in civil life need such assistance."

They are the views of a man, or of men, who cannot rise above opposition to a class of men like the many thousands of veterinarians of this broad land who are united in spirit for a reform which, helping the army, will also be helpful to our country. They are the opinions of men who have not put generosity and a sense of fair play into consideration of this bill. Let them remember that what the President says is true: "The progress of reform is not retarded by generosity and fairness."

Such opposition cannot but die. Americans have too intense feelings against continued wrong; they have too broad a sense of justice to permit such "minority views" to carry in the face of a reform hampered by ungenerosity and unfairness. They have no less a staunch belief than President Wilson in progress toward betterment, and as a people we frown upon class discriminations—a sense which has been so admirably expressed by Tennyson in Lockley Hall:

"For I doubt not through the ages one eternal purpose runs;  
And the thoughts of men are broadened with the process of  
the suns."

Let such opposition die. There are enough broad-minded men in the Senate of the United States to-day to support the Army Veterinary Service Bill and ensure its passage when it is called up on the floor. We of the veterinary profession have met plenty of such men like Senators Kern, Chamberlain, Lea, Catron, Lewis, and scores of others who have "the new temper," the broader gauge, of which President Wilson speaks. Let us rely upon them, and tell them we rely upon them, for the passage of this bill, H. R. 4541. G. S.

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#### A MODERN VETERINARY BUILDING.

Having been privileged, at the recent meeting of the New York State Veterinary Medical Society, at Rochester, to listen

to a very interesting address on "Recent Advances in Veterinary Education," by Professor E. A. A. Grange, of the Ontario Veterinary College, in which some reference was made to the new building recently erected by that institution, we subsequently engaged Prof. Grange in conversation in regard to the building (with the smallest detail of which he seems to be familiar), and elicited the following information, to which we have given



THE NEW QUARTERS OF THE ONTARIO VETERINARY COLLEGE.

publicity for the benefit of those who may be interested in the progress in teaching veterinary science in North America, or for those who may contemplate the erection of a similar building for teaching purposes. Following is a brief outline of some of the more salient features of a modern building, which were firmly impressed upon the government architect who had charge of the work; paramount amongst them were strength, air and light, with space sufficient to accommodate, say, 400 students.



To meet the aforesaid requirements a five-story building has been erected, having an air space of, say, nine hundred thousand cubic feet, which covers a ground surface of ten thousand square feet. In order that the building may be strong and steady during delicate operations with the microscope and the like it is built of grey freestone and brick reinforced with 450 tons of steel frame work which is arranged so that each and every floor is supported by independent iron work and does not depend on the partitions beneath, or columns to hold it up. This ingenious arrangement makes it convenient when partitions require to be removed to enlarge or otherwise change the room which they enclose.

In order that class rooms and other parts of building may be properly ventilated an elaborate system of air ducts are installed in a manner that permits the outside air to be drawn through a current of water, where it is cleansed and then distributed to various parts of the building.

In order to introduce the fresh air and expel the foul or used air, a forty-horse power electric engine is placed in a pent house upon the roof. The engine besides driving large fans for ventilating purposes is to be used as the motor power for a large freight elevator which runs from the basement to the top floor. The elevator is so arranged that animals can be taken to any floor of the building.

The area consumed for illuminating the building measures 810 square yards for windows and 360 square yards of skylight surface in the roof.

The top floor is mainly consumed by two laboratories, one of which is 104 feet by 42 feet and is to be used in the study of practical anatomy. It has an incinerator at one end capable of cremating at least two dissected horses at one time; in addition to this is a blood-letting room and students' toilet rooms. On the north side of this floor is another laboratory fitted up for, say, a class of 100 students. Beneath this are three other laboratories of similar capacity. Throughout the building are various class rooms, varying in size for the accommodation of



about 200 students in each. One large room, called the Assembly Hall, will seat 450.

In addition to the class rooms and laboratories is a museum 45 by 48 feet; also store rooms, offices and various other conveniences. The basement of the building is occupied by the veterinary infirmaries, one large operating room, pharmacy, boiler room, grooms' apartments, and so forth.

Regarding the situation of the college it would be hard to find a more desirable site in the City of Toronto; especially as it has 134 feet frontage on that picturesque thoroughfare known as University avenue, and is in the midst of the most important legislative and educational centers in the Province of Ontario.

In designing the new building a strenuous effort has been made to erect and equip a suitable structure for teaching veterinary science according to the latest and most approved method.

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#### HUMANE TREATMENT OF ANIMALS.

While we feel sure that the present-day veterinarian is naturally humane, it is reassuring to see a great state association, like the New York State Veterinary Medical Society, go on record at its twenty-fifth anniversary meeting in Rochester, in August, by adopting resolutions upholding that sentiment, and making the motto of the society, or its slogan, as the resolution expresses it, *The Humane Treatment of Animals*. We believe that all up-to-date veterinarians employ anæsthetics—general or local—for major operations, and many of them for minor ones, and we would urge *all* to make it a routine practice to employ anæsthesia in any and all surgical procedures, no matter how small, that would cause the patient any pain or suffering without their use. Once a practitioner begins to do that, he will find that it is not only humane, and a source of comfort to his dumb patient, but it will dignify his operative procedures and make them so much more simple and satisfactory; besides increasing his respect for himself and raising our profession up to its proper level, that of the medical profession.

Surely it was a noble inspiration that prompted the chairman of the committee on the twenty-fifth anniversary meeting of the New York State Veterinary Medical Society—himself a practitioner of nearly thirty years' standing—to have such a slogan emanate from that organization, as it launched on the second quarter of its century run. The same sentiment was expressed in a paper presented to the Missouri Veterinary Medical Association in July, by Dr. A. H. Holkenbrink, in a paper entitled *The Veterinarian's Humane Duty*. These are examples that the national body and every other association in the country might emulate with pride, that the veterinary profession may stand before the world in its true light, and its members not be erroneously confused with vivisectionists.

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#### THE CONGRESS IN LONDON.

When we stated on page 526 of our August issue that a full report of the London Congress would be published in our September issue, that our readers might be in possession at the earliest possible date of the happenings in London that were to affect veterinary science throughout the world, we certainly did not realize the significance of those words as applied to conditions that have developed since that time. It is not alone happenings in London, however, that has affected veterinary science throughout the world, but happenings in many European countries. We have, as we promised, given our readers a full and faithful report of the London Congress, but not the report filled from beginning to end with scientific facts, gleaned from the leading members of our profession *throughout the world*, that we anticipated giving them. That was not to be; and those who anticipated such a report, must of necessity be disappointed; but not nearly as much so as those who have spent their time and their money to attend the Congress. And besides, through the keen and intelligent observations of our esteemed collaborator, Dr. De Vine, who represented us at the Congress, and his diligence in recording his observations enroute, we are able to give our readers a considerable

amount of information in connection with matters of interest to them, in addition to the report of the Congress. So that, besides the proceedings at London, published on page 694 of this issue of the REVIEW, will also be found a most interesting story beginning on page 678. And now the great European tour and the London Congress are matters of history, and many of our American friends are at this writing on board the "Magnolia," headed for New Foundland and Halifax, and will in all probability be with their families before this number reaches our readers; and the REVIEW extends each and every one a hearty WELCOME HOME!

SOUVENIR ISSUE OF THE VETERINARY JOURNAL—Just as we were closing up our forms for the September issue, a souvenir (August) issue of the *Veterinary Journal*, edited by Professor Hobday, London, reached our desk. This number, with a frontispiece of His Most Gracious Majesty King George V (Patron of the Tenth International Veterinary Congress, London, 1914), is devoted exclusively to the congress, and gives a brief history of it, dating from its origin through the efforts of the late Prof. John Gamgee, down to the present time. Also, starting with Gamgee, its readers are given an opportunity of becoming familiar with the faces of the great men of Europe, with whose names, in connection with veterinary science, they are already familiar. It is most interesting, and we are greatly indebted to Prof. Hobday for it.

ON BOARD THE STEAMER ANTOINETTE, JULY 30, 1914.—A post card with a picture of a little Dutch girl in colors, on one side, addressed to the editor of the REVIEW, bore the following signatures on the other side, showing the first and second sailing parties united abroad: J. F. DeVine, N. S. Mayo, E. B. Ackerman, E. F. Sanford, A. Eichhorn, C. J. and Mrs. Marshall, Harry D. and Mrs. Gill, L. Enos and Mrs. Day, J. L. Hoyliman, J. H. Blattenberg, P.D.Q., P.H.D., W. B. Holmes, D. M. and Mrs. Campbell, H. C. and Mrs. Moore, E. H. Shepard, T. B. Harries, J. M. Arinsburg, F. B. Hadley, W. Reid and Mrs. Blair and R. C. Julien.

## ORIGINAL ARTICLES.

### FEDERAL MEAT INSPECTION AND THE DESIRABILITY OF SUPPLEMENTAL STATE AND CITY INSPECTION.

BY JOHN R. MOHLER, WASHINGTON, D. C.

Many authorities share the opinion that the exercise of control over the food supply and the problem of the procurement of cheap wholesome food for the poor offer a wider and more promising field of public usefulness than a number of the questions which are at present receiving an undue amount of public attention. The careful sanitary control of our food is especially necessary in the case of animal food products, particularly meat and milk, which are most apt to carry infections and are readily decomposable. This subject of food inspection has so wide a scope that a description of the examination of one animal product, such as meat, will afford a sufficient illustration of the principles involved.

The solid foundation of scientific meat inspection may be said to be the biological investigations of the meat measles and trichina, which were of such widespread interest that they gave the subject great impetus. Experiments regarding the danger to man from the consumption of meat of tuberculous animals and investigations relative to the production of meat poisoning in man from eating diseased meat likewise showed the great public importance and necessity of such inspection as would eliminate these dangers. As a result of numerous investigations along these and similar lines, many countries have from time to time enacted laws governing the inspection of meats, until at the present time legislation on this subject has been adopted by almost all the countries of continental Europe as well as by New Zealand, Argentina, Uruguay, Canada and the United States.

It will be seen, therefore, that a healthful and wholesome meat supply is becoming more and more sought after, and in numerous places efforts are being made to control and thereby improve it.

The principles of meat inspection vary in different countries, depending upon the local conditions. In countries where meat is not very abundant it is even necessary for the officials to keep a sharp watch to prevent the people from knowingly eating diseased meat.

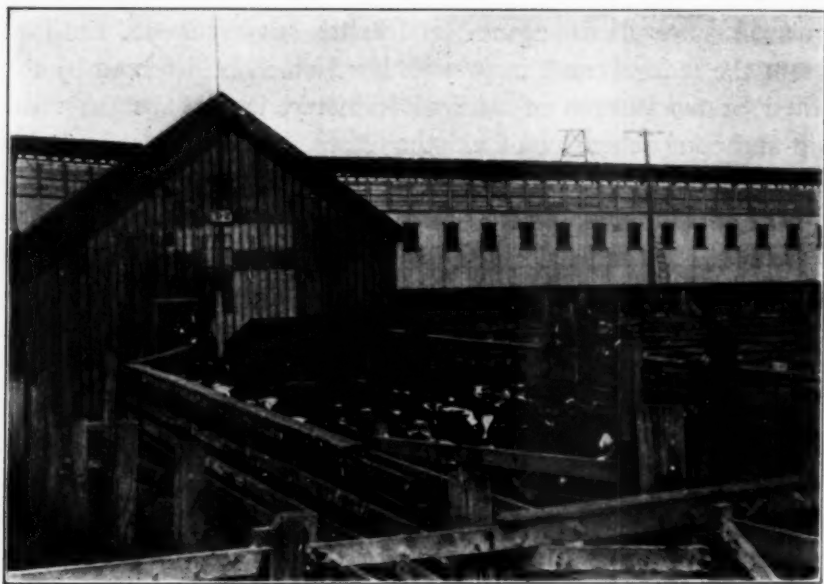
In the United States the inspection of meats is conducted by the federal government, by the state or by the municipality. Inspection by the government has gradually been extended and improved since its inauguration by the law of 1890, until at present the federal meat inspection law, which is enforced by the United States Bureau of Animal Industry, is perhaps the most rigid and comprehensive of existing laws on the subject. Under this law meat inspection proceeds by logical steps, commencing with the careful antemortem examination of the animal, continuing with the inspection of the carcass while being dressed, the supervision of all meats used for curing, pickling, smoking, cooking or canning and finally with the proper, honest labeling of all meat or meat products.

The antemortem inspection consists in the careful examination of the live animals. This examination is made in the stock yards or in the pens or alleys of the establishments at which they are to be slaughtered. In the large stock yards doing an interstate business the antemortem inspection under the meat inspection law is reinforced by an inspection made under the quarantine laws, all animals entering the yards being inspected on arrival with a view to detecting contagious diseases and preventing their spread. When an animal is observed that gives any appearance of being unhealthy or unsound the inspector or his assistant affixes to its ear a numbered metal tag bearing the words "U. S. Suspect." Such animals are segregated and slaughtered separately from all others either before or after the regular killing.

The chief value of the antemortem inspection is in segregating the animals of suspicious appearance so that they may be given special postmortem examination, and also in detecting certain diseases, such as acute hog cholera, actinomycosis, acute febrile diseases, etc., in which the antemortem symptoms are pro-

nounced, while the postmortem lesions are sometimes very slight.

The postmortem inspection is much more important than the antemortem, and is our chief reliance in passing on the health of animals and the wholesomeness of their carcasses. In most cases it is impossible to determine the nature or extent of disease in the living animal. This is especially true of tuberculosis. Animals are frequently found which have every appearance of being per-



Antemortem inspection of cattle.

fectly healthy and in good condition, but after slaughter are found to be very extensively affected with tuberculosis.

The postmortem inspection is made at the time of slaughter. In the large packing houses where the rate of killing is rapid the system of inspection has so far as practicable been adapted to the conditions so as to provide thorough and careful inspection without unduly obstructing the operations of the establishment. Visitors sometimes wonder how it is possible for the inspection to be done thoroughly when the slaughtering is done so rapidly. In the case of hogs, for example, the glands of the neck are common seats of tuberculous infection, and the disease is first



looked for there when the head is severed. As the abdominal cavity is opened and the viscera exposed another inspector with practiced eye watches closely for the slightest abnormal appearance, and feels and lays open with a knife various parts in order that any obscure signs of disease may be detected. Upon observing the slightest indication of disease or any abnormality the carcass is "retained," that is, it is set aside, marked with a num-



Postmortem inspection of cattle.

bered tag for identification, and sent to a special place or room where a careful and thorough examination is made by another inspector to determine the proper disposal of it. By this means a much more thorough examination is possible than if the final inspection were made at the time of the first discovery of indications of disease.

Following the postmortem inspection there is a further inspection and supervision covering all the various processes of



preparing, curing, and canning meat food products of various kinds. This part of the work is done by men who are designated as meat inspectors and who have had special experience fitting them for such work. The object of this inspection is to prevent or detect any unwholesomeness which may occur or develop after the meat has passed the postmortem inspection, and also to guard against insanitary methods, adulteration, or the use of harmful chemicals or preservatives, and to enforce honest labeling. This



An Inspector watching the preparation of beef tongues for packing.

part of the inspection applies especially to such products as hams, bacon, lard, sausage, oleomargarine, and cured and canned meats of various kinds.

As an additional safeguard against adulteration or the use of forbidden chemicals or preservatives, samples of the various products are taken from time to time and examined by laboratory inspectors.

Having seen that only wholesome meat is used and that it is

prepared under clean conditions and without harmful preservatives, the inspectors go one step further and see that the package is truthfully labeled. Shoulders can no longer masquerade as hams, and products which formerly went under the names of "potted ham" and "potted tongue" must now be labeled "potted meats" or "potted meat food products."

The magnitude of the inspection is shown by some statistics covering the past seven years, the period during which the new law has been in effect. In that time there have been inspected at the time of slaughter over 378 million animals. Of these there



Insanitary conditions in an uninspected slaughter-house.

were condemned as unfit for food over 1 million carcasses and over  $4\frac{3}{4}$  million parts of carcasses, making a total of nearly 6 million carcasses condemned in whole or in part. Nearly 40 billion pounds of meat and meat food products were prepared and processed under inspection, of which over 160 million pounds were condemned on reinspection.

During the past year more than two hundred and fifty thousand whole carcasses of animals and over half a million parts of carcasses were condemned, besides 18 million pounds of meat which was condemned upon reinspection. The probabilities are that if there were no inspection a large proportion of the meat so condemned would have been marketed for human consumption, and as tuberculosis constitutes the chief cause for condemnation, the direct relation of the meat inspection to the public health will readily be seen.

The standards of inspection are based on the best scientific knowledge of the present day and are sustained by the practically unanimous views of all the great scientists of the world who are experts on the subjects involved. Our regulations and practices are fully as stringent as those of any other nation, and under them much meat is condemned which in other countries would be passed for food.

It should be understood that the Department inspectors do

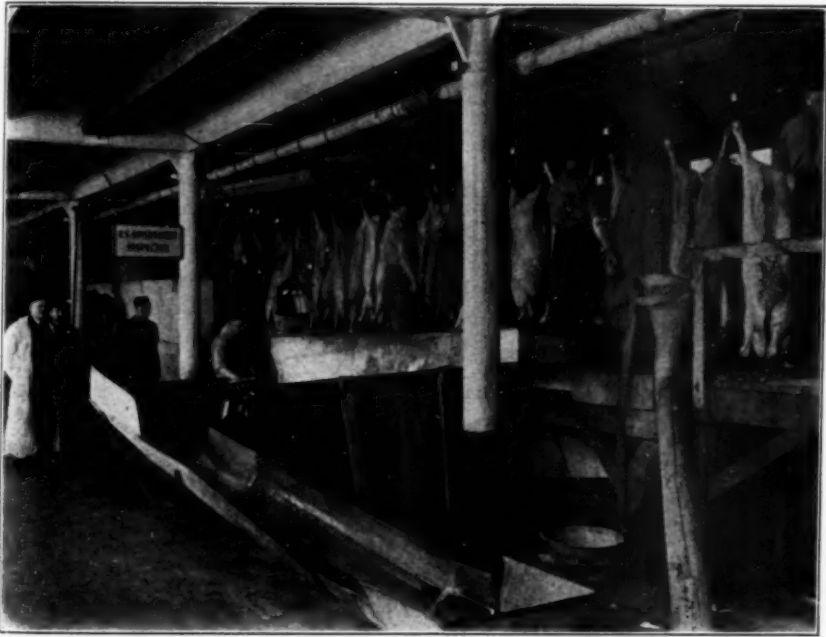


The inspection of neck glands of hogs. If tuberculosis is present it is usually found here.

not pass diseased meat; they only pass under certain circumstances the sound and wholesome meat of a slightly diseased animal after removing and condemning the affected portion, which is usually an organ.

The argument that all the meat of an animal affected to even the slightest degree with any disease should be totally condemned and destroyed, if carried to the extreme and to its logical end, would result in the condemnation of practically every animal

slaughtered and the abolition of meat as food. As Prof. C. E. A. Winslow, Curator of Public Health, American Museum of Natural History, New York City, has recently stated, "The ideally healthy animal is about as rare as the ideally perfect human being, and the policy of the United States Bureau of Animal Industry in condemning grossly diseased animals and organs, errs, if anything, on the side of severity."

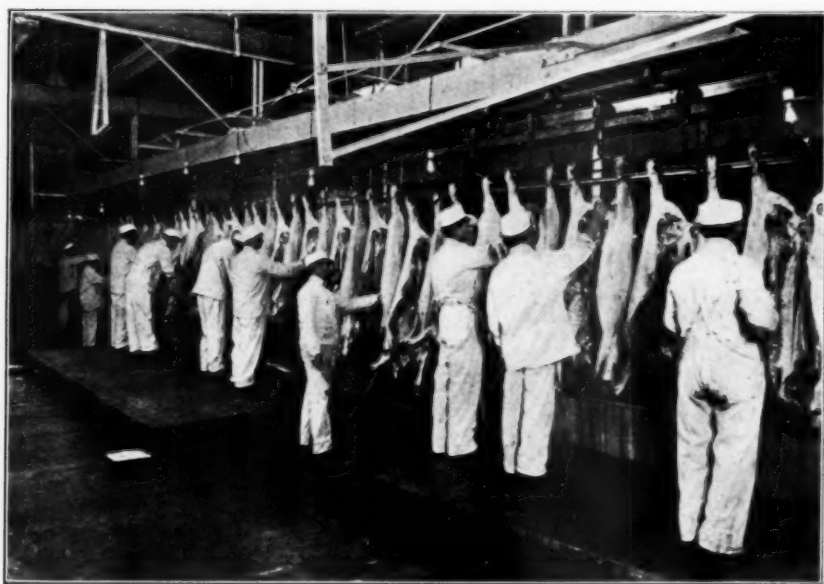


Inspection of the viscera of hogs.

The high price of meat in recent years has been brought home to everyone who pays the bills. It is now evident that there is an actual shortage in meat production in the United States, regardless of whatever other causes may also have contributed to the rise in prices. It is estimated that in the last four years the per capita consumption of meat in the United States has fallen off nearly 12 pounds. The per capita consumption in 1909, based on census figures, was 162.20 pounds (exclusive of lard), while the estimate for 1913 was 150.62 pounds.

The most serious decline is in beef production. The number of beef cattle in the United States in 1909, according to the census, was 41,178,000, while the number in the country on January 1, 1914, as estimated by the Bureau of Statistics of the Department of Agriculture, was 35,855,000, a decrease of 5,323,000, or nearly 13 per cent. In the same period there was a decline of over 5 per cent. in the number of sheep and a very slight increase in the number of hogs.

It must be remembered, however, that the population of the



Dressing and inspecting carcasses of hogs and putting on the marks of inspection.

country is constantly growing, the estimated increase from 1910 to 1914 being nearly 7,000,000. The relative falling off in the number of meat animals is therefore even greater than the actual decrease. If we compute the number of animals necessary to maintain the ratio to population that existed in 1909, we find that there is now a relative shortage of 19.2 per cent. of beef cattle, or 8,536,000 head; 11.6 of sheep, or 6,509,000 head; and 5.2 of hogs, or 3,214,000 head, making a relative total shortage of 18,259,000 head. Comparing 1913 with 1909, therefore, we

are short nearly 9 beef cattle, 7 sheep, and over 3 hogs for each 100 people.

From being an extensive exporter of live cattle and meat products, the United States within the past year has become a large importer. Several years ago our exports of live cattle alone amounted to over half a million head in one year, besides which we exported over four hundred million pounds of meats. Our export cattle and fresh meat trade has now practically vanished for the simple reason that our home demand is sufficient to absorb our entire production. Our only meat exports of any considerable importance at present are cured pork products.

Lately we have been importing considerable quantities of meat, especially refrigerated beef, from Argentina and other countries. In March our imports of meat products amounted to over 23,000,000 pounds, and during the past six months, from October to March, inclusive, they were nearly 95,000,000 pounds.

The United States has undeveloped resources for cattle raising, and there is no doubt that by proper methods we can considerably increase our production of meat, but this will probably be a rather slow process and may require years of constructive effort. We have only 23 cattle to the square mile, while Belgium has 164 and Denmark 144. However, any such intensive scheme of beef production is found to be more expensive than the former methods of raising cattle on the vast grasslands of the open range.

With the growing scarcity of meat and the high prices of this and other foods it becomes more important than ever that our meat supply should be conserved and that we should waste no wholesome food. Our first aim in administering the government meat inspection is to protect the health of the consumer and to give him the benefit of every doubt. There is no disposition on the part of the authorities to pass for food any meat that is unwholesome or even of doubtful wholesomeness. But it would be an economic wrong to destroy on purely sentimental or esthetic grounds meat which we know scientifically to be perfectly wholesome.



It is estimated that about 60 per cent. of the total meat supply of the United States comes under the inspection of the federal government. Most of the remainder receives no inspection whatever, while a small proportion is subjected to some kind of inspection by local or state officers. For instance, the federal government is powerless to exercise any supervision over the meat that is slaughtered, prepared, sold and consumed entirely within a single state. For this class of meats, state inspection should be inaugurated as has been done in Pennsylvania, and the work of examining such meats taken up where the government inspection leaves off. In fact, the federal inspection should be supplemented not only by the state inspection, but by the municipal inspection as well, which would include the inspection of: (1) the small slaughter houses which do only a local business; (2) the commission houses and sausage factories; (3) the retail butcher shops.

It is a duty which the state and municipality owe to their citizens to establish a system of meat inspection that will afford adequate protection against diseased and unwholesome meats in order that all meat sold locally which has not passed the federal inspection will come under the requirements of an efficient local inspection system. The public must be able to secure the best as well as to avoid the bad. The great danger that menaces the consumer arises from uninspected meat produced in the numerous unclean and malodorous private slaughter houses so frequently found on the outskirts of most of our cities. To control the latter and to control them efficiently it is essential that laws be enacted for the proper supervision of these establishments which kill at all hours of the day and night, as inclination dictates or necessity demands. A far better law, and one which would receive the endorsement of all sanitarians, would ordain the abolition of these small buildings and the establishment of a public or municipal slaughter house, remote from the centre of the city and its business section, and where a thorough inspection by an experienced veterinarian could be made of all animals at the time of slaughter.



The modern idea of the slaughter of animals is that it should form one of the regulated industries, and this feeling is due principally to the desire that nothing but sound meat should be offered to the consumer. It may be argued that sound meat can be produced in these private slaughter houses just as well as in public institutions, but this is certainly incorrect so long as the inspector is enabled to make only casual visits, while during the remainder of the time the onus of judging whether a meat is sound or otherwise rests solely with the owner of the meat. If public officials are to have the responsibility it is only fair that the industry should be concentrated at certain points in municipal or central abattoirs, which are quite common and entirely satisfactory in Europe. Such abattoirs under rigid, though rational restrictions, would be beneficial not only in facilitating the business, but in promoting the sanitary interests of the city, since all the offal could be disposed of at once and all portions of the carcass not edible could be reduced to inoffensive articles of commerce. Furthermore, it is questionable whether any city could afford to employ the large number of officials that would be required thoroughly to supervise the inspection at the time of slaughter in the numerous, widely scattered establishments which at present exist in our larger cities. Any substitute form of inspection which includes merely the dressed carcass is unworthy of the name and is extremely delusive, since it gives a false impression of security to the consumer. This fact is being appreciated more and more by various municipalities and as an illustration I desire to mention the meat inspection system of Cincinnati, which I believe is the equal of any municipal inspection conducted anywhere in the United States. There are nine men employed by the city, seven of whom are veterinary inspectors, and two are laymen. The former conduct the ante-mortem and postmortem inspections and make such reinspections of the meat as are necessary. The two laymen are assigned to market places, inspecting meat markets to locate unsound meats on hand, the condition of ice boxes, cleanliness of the stores, etc., and to see that all meat and meat food products handled at these

markets bear either the marks "Cincinnati Inspected and Passed" or "United States Inspected and Passed." Antemortem and postmortem inspection is conducted at 12 local establishments. The above number of men does not include the Chief Meat Inspector, who estimates the cost of meat inspection to the city at approximately \$9,800 per annum. It is the aim of the Chief Meat Inspector to co-operate with the Bureau of Animal Industry and to follow the rules and regulations of that Bureau, which I am glad to say is not only the written order, but is complied with fully in actual practice.

In some cities the inspection is enforced by laymen such as butchers, cattlemen, or men even more disconnected with the practical part of the work, and the results are seriously handicapped on account of their inability to recognize lesions which would at once appeal to one trained in the anatomy and physiology of domestic animals, and in the relationship existing between their diseases and human health. If an adequate reason for state or municipal inspection exists, and no one of intelligence will deny it, this should possess equal strength for having the law intelligently and efficiently enforced by capable inspectors skilled in the knowledge of sanitary science. In this country we are beginning slowly to recognize the need of special training for various branches of the public service, including the inspection of food animals and animal foods. The time has come to demand trained specialists who shall devote their whole time and energy to this particular phase of the public health protection. In addition we must insure them a tenure of office dependent upon efficiency gained by special training before they assume office, and not acquired solely as a result of their experience obtained at the expense of the public.

Therefore a corps of thoroughly trained veterinary inspectors is one of the most important links in the chain of any efficient meat inspection system. The government recognizes that it requires a high degree of skill to conduct this work, and it has therefore placed the meat inspection service under the civil service, and further, it will admit veterinarians only if graduates

of recognized veterinary colleges. In addition they are required to pass a civil service examination, and must, furthermore, submit to the Danish system of serving a probationary period of six months before obtaining a permanent appointment.

The extent of this work is indicated by the fact that at present inspection is maintained at 792 establishments in 227 cities and towns, requiring the services of about 2,500 employees, including a large proportion of veterinarians, who make all final decisions on postmortem. Taken as a whole, this large number of employees, constituting the great administrative body of the Federal Meat Inspection Service, is a conscientious and efficient force of men who deserve well of both the service and the public, whose welfare they constantly guard. In their loyalty to the former, they are necessarily loyal to the latter, for their interests are inseparable.

The present Secretary of Agriculture, Hon. D. F. Houston, upon assuming that office, determined to have the meat inspection service carefully investigated by experts outside the Department. Accordingly, in July, 1913, the following named gentlemen were engaged for this purpose, each to investigate the work in the states assigned to him: Wm. T. Sedgwick, Ph.D.; Hon. Sc.D., Professor of Biology and Public Health of the Massachusetts Institute of Technology, and a member of the Advisory Board of the Hygienic Laboratory of the United States Public Health Service.

V. A. Moore, M.D., V.M.D., Professor of Comparative Pathology and Meat Inspection, Cornell University.

M. P. Ravenel, M.D., Professor of Hygiene, University of Wisconsin, and Director of the Wisconsin State Laboratory of Hygiene.

J. W. Connaway, D.V.S., Professor of Veterinary Science, College of Agriculture, University of Missouri.

The letters of appointment contained the following statement: "With a view to safeguarding public health and maintaining the highest degree of efficiency in the meat inspection service of the Department, it is my desire that you report directly to me fully

and frankly the conditions as you find them at the various packing establishments, together with such recommendations looking to the improvement of the service as in your judgment may seem best." Drs. Sedgwick, Moore and Revenel have submitted reports of their investigations. Dr. Connaway has not yet found time to complete his investigations and make a report. From the report of Dr. Sedgwick, I wish to bring to you the following sentences:

"In conclusion, I may say that cut short by my illness as my investigation of the meat inspection service has been, I am nevertheless deeply impressed with its excellence, its usefulness and its efficiency. It is everywhere admitted I think that the United States meat inspection is far superior to any provided by the states, and that these constantly look up to it as a model toward which they are striving."

From that of Dr. Moore, I have taken the following statements: "In each of the packing houses the postmortem examinations were being made according to the regulations for passing and condemning carcasses. In every instance the regulations were being carefully observed. The condemned carcasses or parts of carcasses were taken by the inspectors and tanked as soon as the killing stopped, or they were placed under lock or seal to be tanked later. There seemed to be a clear understanding on the part of the veterinary inspectors of the rules regarding the condemnation of carcasses. I failed to find any infringement of the regulations on this subject." \* \* \* "To convince one of the great advances that have been made it is but necessary to visit a local uninspected slaughter house and contrast the conditions found with those in federal inspected establishments." \* \* \* I have not been told by anyone outside of the service of the good work that is being done by the inspectors in safeguarding the people against bad and diseased meat and the improvements in sanitary ways of handling meat and meat products. There is not a general understanding of what is being done nor of the problems to be solved. \* \* \* The truth should be known. It would bring relief to the skeptical and much credit to the federal meat inspection service.

From Dr. Ravenel's report the following sentences are reproduced: "The two ideas which influenced me most in making the investigations were:

"First—Are the methods laid down in the regulations sufficient for the furnishing of good meats to the public and the protection of public health?

"Second—Are these regulations efficiently carried out? To both of these questions I am able to give an affirmative reply."

These commendable and stimulative statements should be considered in connection with the report of the commission of eminent scientists outside the Department, presided over by the "Father of American Medicine," Prof. Wm. H. Welch, of Johns Hopkins University, and appointed in 1907 at the suggestion of President Roosevelt to consider and make recommendations with regard to certain features of the meat inspection service. Their conclusion was that "if there be any general error in the regulations, this is in favor of the public rather than in favor of the butchers and packers."

The Department, however, has not interpreted these gratifying conclusions to mean that perfection has been attained in the work, but rather that much progress has been made in overcoming the serious obstacles which confronted the enforcement of a satisfactory meat inspection service. In fact, the Secretary of Agriculture is at present knocking at the door of Congress, requesting amendments to the present meat inspection law in order that it may be administered with the degree of effectiveness which its terms contemplate. For instance, the law now inhibits the sale of any meat or meat food products under a false or deceptive name, but such products may legally be sold without being labeled. In other words, it is desired not only to use no false or deceptive name when labels are used, but to compel the use of true labels on each product, primal part or portion of a carcass that has been inspected and passed. Again, the present ambiguous wording of the law makes it doubtful whether the statute prohibits the interstate shipment of meats which are unmarked, if cut from carcasses that have been inspected and passed and properly



marked. Without a clear requirement that inspection marks appear on each piece of meat that enters interstate commerce or upon the container thereof, the Department is greatly hampered in maintaining prosecutions based on the charge of shipping uninspected products. Furthermore, uninspected or unmarked meats should be prohibited from being shipped from one point to another in the same state which in the course of transportation pass through a second state. As commerce with the District of Columbia is not interstate commerce according to the opinion of Mr. Justice Miller, it becomes desirable to make all shipments of unsound and unwholesome meat and meat food products for human consumption from a state to a territory or to the District of Columbia, or vice versa, subject to the law. It is also desired to relieve the Department of the burden of proving *knowledge* on the part of the shipper that the meat products shipped were unsound and also that they were *intended* for human consumption. Moreover, authority should be given the Secretary of Agriculture to fix standards, to withdraw inspection on account of violation of any regulation, to use an abbreviated form of the present federal inspection marks, to grant permission for fats condemned for causes other than disease to be used in the industrial arts in lieu of their commercial destruction by a denaturing agent, to make reinspection, wherever found, of meat and meat food products bearing the federal mark of inspection, and to extend exemption privileges under appropriate supervision and control to butchers and dealers who are not strictly retailers, but whose business is so limited as not to justify the expense of establishing inspection at their plants.

The public may rest assured that the Secretary of Agriculture and other officers of the Department are disposed to do everything possible to maintain the meat inspection service at a high standard and to improve its efficiency so far as possible. The chief object always held in view is the protection of the people against unwholesome products.

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See story of European trip on page 678; and report of Congress on page 694.



## THE ADVANTAGE OF A SANITARY MILK HOUSE ON THE FARM.

BY DR. C. R. POTTEIGER, ASSISTANT FOOD INSPECTOR, READING, PA.\*

To limit one's self strictly to the subject as stated, one might sum up the whole proposition in a statement to the effect that the advantage of a milk house is protection of the milk from contamination after it has been drawn from the cow. However, I feel it is necessary to include a few of the vital points of sanitary milk production in order to more thoroughly appreciate the necessity of the milk house for the handling of milk after it has been produced.

It is evident that in nature's scheme for nourishment of the young, milk was never expected to be exposed to the contaminating influences with which we are more or less familiar. If milk is sucked from a normal healthy gland it is the perfect food for the offspring, and in this natural method there is no possibility of outside contamination. When milking is done artificially, we have an entirely new and different set of conditions. The problem of securing clean milk, *i. e.*, milk as near as possible to the conditions as it exists in the udder, is the problem of dairy sanitation. It is the problem of reducing contamination from outside sources to the least possible factor.

In the production of sanitary milk we have five important steps which we must take in order to achieve a good product:

1. The cows and employees must be healthy.
2. They must be milked in a clean manner.
3. The utensils into which it is milked must be perfectly clean.
4. The milk must be cooled free from any chance of contamination.
5. The milk must be stored and transported under auspicious conditions.

\* Read before the Schuylkill Valley Veterinary Medical Association at Reading, Pa., June, 1914.

The first two of these steps really have nothing to do with the milk house, but the milk house enters largely into the last three steps. However, the treatment of the subject would hardly be complete without taking into consideration the first two steps, because without proper consideration of these, the milk house would be of no avail in the production of good milk.

The first step I have considered is that the cows must be healthy. This is very necessary for the production of sanitary milk, when we consider that there are at least a dozen diseases which are transmissible from diseased cattle to the human, or which cause some allied disease in the human. Foremost among these we have tuberculosis, anthrax, foot and mouth disease, cowpox, mammitis or garget, gastro-enteritis, actinomycosis, botryomycosis, rabies, septic or febrile conditions and milk sickness.

It is very necessary to carefully examine cattle for these diseases when inspections of the dairy herds are made, but fortunately very few cattle have been found affected with these diseases in the herds from which milk is shipped to Reading. Tuberculosis is, of course, the most prevalent, and although the general condition of cattle in our community is good, and although they do not show physical lesions, still I have no doubt that a tuberculin test of all the herds would show a very large percentage of affected animals. Most of the farmers have been made to realize the danger of having tubercular cattle in their herds, and now buy none but "shipped" cattle; but very few farmers have had their herds tested of their own accord.

Next to tuberculosis the most prevalent diseases found which would affect our milk supply are garget, gastro-enteritis and septic or febrile conditions from various causes. These are especially dangerous for the reason that the average farmer, though he will not use the milk from an affected quarter, in a case of mammitis, will use the milk from the other three quarters unless strict orders are given to the contrary by the attending veterinarian.

I would urge all veterinarians to help in educating the farmer

to discontinue using any of the milk from a cow which has garget, for it has been demonstrated that the streptococci are found not only in the affected quarter, but in the others as well. These streptococci are apt to cause violent digestive disorders, especially in children, if used in the raw state. The same holds for gastro-enteritis and other septic or febrile conditions.

Fortunately, we have very little trouble with any of the other diseases owing to their scarcity and can pass them with the knowledge that they are, however, dangerous if found.

2. The cows must be milked in a clean manner. This involves not only clean methods but the necessity for clean cows, clean stables, clean bedding, clean floors, clean hands and clean clothes on the part of the milkers. This might be divided into four parts: clean cows; clean stable; clean milkers; clean milking.

A very large percentage of the contamination of milk is from the outside, and it is very necessary to guard against this at milking. The cows should be thoroughly cleaned free from dirt and manure, on the udder, flanks and tail, for if the cow is not clean it is almost impossible to keep the milk clean, regardless of what other precautions might be taken. The best way to procure this cleanliness is to have the cow curried at least fifteen minutes before milking, and the udders carefully washed and wiped. Clean stables are necessary, too, for the prevention of contamination. Too frequently one sees a ceiling which is not tight and through the cracks of which hay is hanging, offering inducements for spiders to spin their webs, which in turn aid in the collection of dirt and chaff which is apt to fall into the milk pail during the process of milking. A good tight ceiling carefully whitewashed obviates this difficulty.

Too often, too, one sees the milkers go into a stable, the floors and gutters of which have not been cleaned before milking, place a clean bucket and stool over the dirty straw and then later pick up the bucket and stool, soiling the hands and taking no measure to clean the hands when soiled. A few minutes' time in cleaning the stables and clean bedding would obviate this difficulty.

*Clean Milking.*—This constitutes possibly the most important

part of the milking process, for cleanliness of the milkers' costumes and hands, together with a little care in the milking itself, will enable the milker to produce a fairly good product, if the previous precautions have been observed. One occasionally sees the farm hands come in from the field with soiled hands and clothes, and after tying the cattle pick up a bucket and without any further ado begin milking, possibly milking the first few streams of milk onto their hands in order to facilitate milking.

In this way is produced a filthy milk, the remedy for which is self-evident. With milk produced in a sanitary way and with the proper precautions, the other steps in the handling of milk may be considered, in all of which the milk house is an important factor.

3. *The utensils used must be perfectly clean.* At first the connection between clean utensils and a milk house does not seem apparent, but to anyone who has ever inspected dairy farms and has seen the various places that are used for storing utensils, the advantage of a good clean milk house is evident. Where there is no milk house available, one finds the cans and buckets stored in all sorts of places, such as in spring houses, usually clean; in wash houses, stored in with the usual washing machines, water kettles, garden utensils and any old junk that happens to be around; standing on the platform around the pump, on which one usually finds dirt from the chickens, ducks and other animals common to a farm yard; standing upside down on the walk, exposed to the same contaminations as in the preceding instance, or hanging on a fence, usually at the barnyard, and exposed to the dust from the barn and manure yard.

With a clean and well-located milk house one is able to keep the cans on a shelf inside free from contamination and perfectly clean under all conditions. It also serves to keep the cans and buckets from rusting during rainy weather.

Of course, it is well to expose the cans to the sun and air, but for this purpose a shelf should be built on the side of the milk house large enough to accommodate all the utensils and high enough from the ground so as to be out of the reach of chickens,

ducks, dogs or cats, a fly netting over the mouths of the cans serves to keep out the flies which are apt to be found around a farm yard during the summer. The advantage derived from a milk house in being able to keep the buckets and cans clean should be enough to cause every dairyman desiring to produce good milk to build a milk house.

4. *The milk must be cooled free from contaminating surroundings.* It is absolutely necessary that the milk be properly cooled before being shipped to the city and this can be done properly only where there is a milk house available.

Where there is no milk house available, the milk is cooled and stored in all sorts of undesirable ways and places. Where there is no milk house there is no cooler, and that invariably means that the milk is stirred until cool. Some of the utensils used for stirring include broomsticks, measuring sticks, wooden paddles, dippers, spoons; while some few use a metal stirrer made for the purpose.

Where there is no milk house there is no place to keep these utensils and we find them stuck under the watering trough in the barnyard, hanging in a closet in the horse stable, lying on the fence at the edge of the barnyard, hanging up beside the pump and other almost inconceivable places.

In most instances the utensils are exposed to the dirt and dust of the barnyard, the chickens, birds, dogs and other chances for contamination common to such a place.

Nor is this the only difficulty experienced, for in most instances these utensils are not thoroughly cleaned either before or after using, and when they are washed are usually only rinsed in the dirty, liable-to-be-contaminated water of the watering trough in the barnyard.

In this way we see that the advantage to be gained in cooling milk before transporting it is altogether lost because of the number of bacteria and the amount of dirt added to the milk during the course of the stirring. It is for this reason that the stirring of milk is prohibited on the farms of those who ship milk to the city of Reading.

It must be understood, however, that milk must be cooled before being shipped to Reading, and the advantage of a milk house is immediately evident when we compare the foregoing system with cooling the milk over a good tubular cooler in a clean milk house.

Where a cooler and milk house are available the milk is removed from the stable immediately after each cow has been milked, so as to avoid having any milk being poured around in the stable exposed to the stable air and odors, and accounting partly for the too common "cowy" taste of milk.

Then, too, by removing the milk to the milk house after each cow is milked, we avoid having the cats falling into the bucket, or perhaps only drinking out of the pail of milk, so commonly allowed to stand on the low shelf until the other cows are milked. Where there is a milk house—used as a milk house only—and kept clean, the milk can be cooled free from any of the foregoing contaminating influences and with a reasonable amount of care a good product is produced. By having a milk house properly screened in summer, one is able to cool the milk free from dust and flies which it would be impossible to keep out if there were no milk house. The utensils can be kept clean and free from dirt, and with good water available in the milk house there is no necessity for contaminating the milk by using dirty water for washing the utensils. The milk must be cooled free from contaminating influences and this is possible only when there is a milk house provided.

5. *The milk must be stored under proper conditions.* Where there is a milk house we expect to find a trough of some kind (preferably cement) in which to store the milk after it has been properly cooled. Of course, where running water is available it is desirable to have a continuous stream flowing through the trough overflowing at such a depth that the water in the trough will be as high as the milk in the can which is in the trough.

Where this is not available it may be necessary for the farmer to use ice in a trough of stagnant water in order to keep the temperature down to such a degree that the bacteria will not



develop. A temperature of not over 50 is required for sufficiently retarding the growth of the bacteria.

Here, of course, the advantage of the milk house is again evident in that one is able to store the milk away from any chance of contamination. The advantage is more clearly seen when we compare this system with the storage of milk where there is no milk house.

We find some storing the cans of milk in creeks running beside the barn yard and liable to be contaminated with the barn-yard drainage; others standing the cans in the watering troughs in the barn yard with the lids partly on the cans, but not so tight that a dog might not knock it off and allow the dirt of the barn yard to blow into it, others standing the cans in an exposed spring, which in case of a rain storm, are liable to fill and overflow into the milk cans; others storing in a tub of water near the barn, never thinking of changing the water for twelve hours—oftentimes the water being as warm as 75 degrees F.—which temperature is a veritable incubator for the lactic acid bacteria.

The milk house is a great advantage, too, in case of a contagious disease on the farm, for by the means of it the milk and utensils can be handled away from the house and any chance of contagion by people who do not have any relation to the quarantined ones.

Thus we see that the advantage of a milk house is really the protection of the milk from outside contaminations, which protection is possible only by means of a milk house that is clean, well lighted and ventilated, and supplied with a trough and a supply of good clean water.

We have seen that a milk house is a great advantage to a farmer in the production of sanitary milk.

But there are certain factors entering into the location and construction of a milk house that must be taken into consideration when a milk house is being planned, and possibly it would be well to enumerate a few of them.

The object of a milk house, as stated before, is to handle dairy products away from anything else, and so one of the most important things in the building of a milk house is its location.

*Location.* It should be so located that it is well away from the barn and pig sty.

It should be on a well-drained spot, preferably higher than the barn, at least with the drainage from the milk house toward the barn, and not the reverse. It should be so located that it is not too long a walk from the barn to the milk house so that the milk from each cow can be taken directly from the stable to the milk house.

It should be free from any contaminating surroundings of any kind.

It should not be built over a creek, especially one which receives or is apt to receive any barnyard drainage, or in the water of which the cattle may stand before it enters the milk house.

It should not be built over a pump unless a partition is placed between the pump and the part in which the milk is to be handled or the utensils washed.

*Size and Construction.* The size and construction of the milk house depends entirely on the use which is to be made of it, but for the average farmer who ships to Reading a house 10 by 12 feet will serve the purpose admirably. The average farmer wants only a place to cool and store his milk and to wash and store his utensils. For this purpose it is desirable to have the milk house divided into two parts in order that the washing of utensils shall not take place in the same apartment in which the milk is cooled and stored. An even division of the milk house, 10 by 12 feet, will allow ample space for both purposes.

A milk house without good water would be worth little, and so it is essential that this factor be well taken care of. It is not, however, necessary to have running water, for by means of a barrel raised a few feet on a siphon, one may easily procure a water system closely assimilating running water for use through a tubular cooler. It is necessary to have good drainage in the milk house, and this is best secured by means of a well-sloped cement floor.

Cement is impervious and easy to clean and, taken all in all, is less expensive than good heavy planks.

For the sides of the milk house, one has a choice limited only by the size of the desired expenditure. Only one thing is to be considered, and that is that it be made smooth and free from unnecessary ledges or rough surfaces, which would be apt to collect dirt.

There should be plenty of light and some arrangement made for ventilation. This may be secured by placing muslin over the window space, tipping windows, or by ventilating shafts extending from the ceiling through the roof.

For the proper airing of the cans it is desirable to have a shelf or ledge built on the side of the milk house large enough to accommodate all the cans and utensils for sunning and airing on clear days.

By locating a milk house properly, and having it clean, well drained and well lighted and ventilated, it is possible to keep milk free from any contamination after it has been produced and this is the aim and advantage of the milk house on the dairy farm.

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DRS. BERNs, GANNETT AND RISLEY.—Dr. George H. Berns, 74 Adams street, Brooklyn, N. Y., who has conducted a veterinary practice from that address since 1879, and whose establishment as an incorporation since 1909 has been known as THE BERNs VETERINARY HOSPITAL, announces, under date of August 1, 1914, that his associates in practice, Drs. Ray W. Gannett and Harry B. Risley, have become members of the corporation; the business of which will be carried on under the firm name of BERNs, GANNETT AND RISLEY. We congratulate the young men in having associated themselves with so excellent a practitioner as Dr. Berns, so long established and with such a high professional standing. We also congratulate Dr. Berns in having associated with him two young men of such high character and professional ability.

BY WIRELESS TO THE REVIEW.—On board the Minneapolis, July 26, 1914. Dear Doctor: Fine weather, good company, not a sick moment; wish you were along. Kind remembrances.

BRENTON.

## STATE BOARD EXAMINATIONS TEST APPLICANTS' FITNESS TO PRACTICE.

BY DAVID BENJAMIN MORGAN, PRESIDENT VETERINARY EXAMINING BOARD OF MISSOURI, NEOSHO, MISSOURI.

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In the June issue of the AMERICAN VETERINARY REVIEW, there appeared an article under the caption *State Veterinary Board Examinations*. The article in question was in the nature of criticisms of the questions propounded to applicants for license to practice. The questions are recognized as being those of the Missouri State Board of Veterinary Examiners, and I am prompted to answer the criticisms, as since the establishment of the Missouri Board, its members have worked untiringly to raise our profession to a high standard. The Board of this state welcomes and invites just criticisms, but it resents ridicule, and must protect itself from any attacks which tend to reflect on the integrity of its members.

The usual list of applicants is composed of four types. The non-graduate, who has never attended a veterinary school of any kind, the correspondence school students, the student who has attended a college for one or two terms and the graduate of a licensed and recognized college of veterinary medicine.

It is evident that the critic in question places much credence on hearsay, when he makes reference to specific enlightenment sought by an individual applicant in the examining room. One of the questions by the Missouri Examining Board was to discuss "splenetic fever." An applicant while in the examining room is purported to have asked which they wanted "anthrax or Texas fever," and the reply was, "Texas fever." It would seem to the writer that the very question propounded by the applicant indicated a lack of clearness on his part of the subject. Splenetic fever and Texas fever are identically the same. One and the same fever designated by two different terms and names. In view of the fact that the list of applicants is usually large, oral questions cannot be propounded. It would consume much valu-

able time, and besides the ability to express one's self intelligently on paper indicates that the candidate is not lacking in fundamental training. To "size up" every individual applicant would prove a stupendous task, and favorable or unfavorable impressions would be matters of individual viewpoints.

In the examining room the applicant is permitted to seek enlightenment on any question, which may appear confusing. The Board of Examiners is always present and is ever ready to cheerfully assist an applicant to whom certain questions may not be entirely clear. Inasmuch as approximately two hundred different questions on surgery have been asked of applicants since the establishment of the Missouri Board it would prove difficult to formulate questions entirely unlike those propounded at previous examinations.

Let us analyze a few of the questions which have been cited by the critic.

I. Describe the gall bladder in the ox and horse.

a. Describe the operation for removing gall stones in the horse.

Every reasonable practitioner would regard this as a fair and practical question. A number of applicants answered it with considerable clearness and indicated a thorough understanding, and knew the distinguishing features of the gall bladder of an ox, and the fact that this vessel is altogether lacking in the horse. One of the most reliable authorities on the horse disposes of the gall-bladder question with reference to the horse in one short, concise sentence by stating: "There is no gall bladder." It is true the second section of the question may be termed a "catch" question, but the applicant's answer would indicate if he had made any research in that direction.

The ox is supplied with a distinct gall bladder. Let me quote from a noted authority:

"This is a pear-shaped sac, four to six inches long, which lies partly on the visceral surface of the liver (to which it is attached), but largely on the abdominal wall at the lower part of

the eleventh or twelfth intercostal space. It may be regarded as a diverticulum of the bile-duct, enlarged to form a reservoir for the bile. Its neck is continued by the cystic duct (*Ductus cysticus*), which joins the hepatic duct at an acute angle just outside of the portal fissure, to form with it the bile-duct (*Ductus choledochus*). The latter is short and enters the second bend of the S-shaped curve of the duodenum, *i. e.*, about two feet from the pylorus. Several small ducts (*Ductus hepato-cystici*) open directly into the gall bladder."

2. Why does a cow chew her cud and when does she lose it?

a. How does she regain it?

b. Describe the œsophageal groove (*Sulcus Oesophageus*)?

This is a simple, yet important question, as the answer would indicate knowledge or a lack of knowledge on the part of the applicant of the process of digestion, and the simplest answer that I recall set forth that chewing the cud made possible the secretion of the large amount of saliva from the salivary glands, and enabled the animal to regrind such food which had not been properly masticated.

"Losing the cud" is a rather common expression, and the question was asked for the purpose of determining the extent of the candidate's practical knowledge of ordinary terms.

It may not be amiss at this point to quote from a publication issued by the U. S. Department of Agriculture, which regarded "loss of cud" of sufficient importance to give it space.

"It is very common among farmers, when a cow or ox is ailing, to say that the sick animal has lost its cud. If it is meant that the animal does not ruminate or chew the cud, and that it consequently must be sick, no fault can be found with the expression. In most cases, however, the remark is not intended to convey the idea that the animal does not ruminate, but that the loss of cud is a disease in itself; that the cud has actually been dropped from the mouth and lost, and that for this reason the cow cannot ruminate. We may here observe that loss of cud



is a symptom of suspended rumination, and shows that the animal's digestive functions are not performed as regularly as usual. It is a symptom of a great many diseases, and when its existence is detected it should lead the observer to try to discover other symptoms upon which to base a correct opinion as to the nature of the disease from which the animal suffers."

Quite frequently have I heard owners of cattle remark concerning a sick cow: "She has lost her cud." The expression borders on the vernacular, and is a sort of jargon or slang, if I may be permitted to refer to it as slang, quite current among laymen. To be specific such a thing as a cow losing her cud does not take place. It simply means that the animal has ceased to ruminate and indicates disturbances of some nature in the digestive organs. I cannot conceive of a question which would more readily test the candidate's familiarity with the practical. I recall a number of applicants who expressed themselves very clearly on the foregoing subject.

Again I take the liberty of quoting from a standard work relative to the "œsophageal groove" (mentioned under *b* in question 2.

"The œsophageal groove (*Sulcus Oesophageus*) is a semi-canal which begins at the cardia and passes downward (ventrally) on the right wall of the reticulum to end at the reticulo-omasal orifice. It is about six or seven inches in length. Its axial direction is practically vertical, but it is twisted in a spiral fashion, thus its thickened edges or lips project first backward, then to the left and finally forward. The twist involves chiefly the left lip, and the relative positions of the lips is reversed at the ventral end."

The writer of the article in the June issue does not attack question No. 3, which treats of Stringhalt, and doubtless concedes that it is a practical question.

Let us proceed to the next question, which comes in for a severe rebuke:

4. Describe the trifacial neurectomy.

*a.* Why is this operation made?

In commenting on this particular question the critic pulled the wrong trigger. He expresses the hope that some of our skilled surgeons will tell us how they have performed neurectomy for facial neuralgia in the horse or cow. Facial neuralgia? Who said anything about facial neuralgia? In glancing through a work on surgery by Drs. W. Pfeiffer and W. L. Williams I find on page 16 a splendid cut under "Trifacial Neurectomy," and setting forth the method of operating for "relief of involuntary shaking of the head." No one in our profession questions the abilities of these two excellent veterinary surgeons. Both are trained men, who have delved into surgery from a strictly scientific standpoint.

It is the constant aim of the Missouri State Board to prepare well-balanced examinations, which serve the purpose of eliciting from the applicant such information as will demonstrate that he has a well-grounded knowledge of surgery and kindred subjects, and is the possessor of such practical information as will enable him to master the many problems which are bound to confront him in actual practice.

The Missouri State Board believes that the great majority of men are honest and well-meaning, but owing to the very small percentage of men who are unscrupulous it is compelled to exercise the greatest care to prevent any undue advantage being taken by the latter class. Investigations reveal the fact that there is a tendency on the part of some colleges to drill students and have them familiarize themselves with a certain line of questions and the answers thereto, and in this manner make it possible for the incompetent student to occasionally pass. Frequently it develops that applicants who pass under such circumstances fail to hold their own, and in a very short time sift through to the bottom, and never gain a standing as practitioners.

Our Board is striving towards uniformity as far as consistent. Gigantic strides have been made to eliminate the quack. The "chaotic" state has long been passed, and we behold the dawn of a bright future when the members of the veterinary profession will be looked upon as among the world's greatest bene-

factors. We are pulling together for the purpose of protecting the public at large as well as the trustworthy and honorable practitioner. Until a number of our sister states assume a better and more advanced position along veterinary lines, Missouri cannot consistently give the question of reciprocity favorable consideration.

Instances can be recalled where petitions have been presented to the Board of Examiners requesting that certain applicants be passed and given license to practice. Such proceedings the Board most bitterly assails and condemns, for its members believe in playing the game with their hands above the table, and performing their duties fearlessly, irrespective of persons. Our motto has been: "Hew to the line, let the chips fall where they may."

Kindly aid, encouragement and helpful suggestions from the members of the profession are earnestly solicited by the Missouri State Board. With the help of the honorable and sincere practitioners it hopes not only to keep up the present high standard attained in this state, but to bring about a still better understanding and appreciation of the industrious and diligent army of veterinarians who are striving for the protection and perfection of the animal kingdom.

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SUGGESTIONS FOR THE CONTROL OF HOG CHOLERA is the title of a bulletin issued by Dr. S. H. Ward, president of the U. S. Live Stock Sanitary Association; prepared and published under resolution of executive committee August 10, 1914. This valuable little bulletin, from such an authoritative source, deals specifically with control and prevention of this pestilential disease. Copies can be had by addressing the secretary, Prof. J. J. Ferguson, Union Stock Yards, Chicago, Ill.

HIGGINS AND VALLIN FOR BOARD OF HEALTH.—Dr. C. H. Higgins and R. E. Vallin have been appointed by the city council (Ottawa) to fill the vacancies on the local board of health created by the resignations of Mr. Norman Smith and Dr. R. H. Parent.  
\* \* \* \* (Ottawa *Free Press*.)

## THE CESARIAN OPERATION IN THE CANINE.

By A. T. GILYARD, D.V.M., WATERBURY, CONN.

Dystocia is quite common in the smaller breeds of dogs, and upon the successful handling of the condition depends no small share of the veterinarian's reputation.

It is indeed discouraging to work for hours upon a valuable female dog suffering from difficult labor, using all of the different obstetrical instruments at hand and with strict observance of asepsis, only to be rewarded with the disappointment of showing the expectant owner a litter of dead puppies, torn and cut to pieces by the instruments. Following this on the next day we are usually met with the painful necessity of notifying the owner that the bitch has died from shock, which in this case means that she has succumbed to sheer exhaustion, resultant upon the prolonged labor pains and the severe strain to which even the best operator is bound to subject the animal during a very difficult delivery of a whole litter of puppies.

Practically all of this trouble may be avoided by the prompt employment of the cesarian operation, which procedure should always be resorted to when the puppies are not easily delivered alive after one half hour's careful manipulation.

When the difficulty is at all great, that is when it is necessary to use instruments, other than a blunt hook, do not delay the operation as the puppies will soon be dead and the dam too exhausted to last very long.

This is one of the very few major operations which should be done without general anesthesia, the omission in this case is warranted by two very good reasons.

The first and most important is the necessity for a mother's care of the puppies during the first few hours after birth. The bitch which has been anesthetized will pay no attention to her offspring through this most important period and will often kill or disable them.

The second reason is that in nineteen out of twenty cases the subject will lie perfectly still during the operation, showing that the pain caused by the surgeon is entirely eclipsed by the suffering attendant upon the prolonged and futile contractions of the uterus.

At the termination of pregnancy the abdomen is so distended that its wall is very thin, especially near the median line.

That the stretched muscles are but slightly sensitive is proven by the fact that there is hardly a twinge of pain as the knife passes through them.

The field of operation extends from the brim of the pubis to the umbilicus, the most central part of this should be chosen and boldly invaded.

The length of the incision should be governed by the size of the subject, it should be no longer than is absolutely necessary for the handling of the uterus and the withdrawal of the fetuses.

The knife must avoid the mammae and pass parallel to and not more than one-quarter of an inch distant from the median line.

After puncturing the peritoneum with the scalpel complete the incision with the probe-pointed bistoury to avoid injury of the viscera.

It, of course, goes without saying, that if success is expected the most thorough surgical precautions must be observed at every step of the procedure.

When the incision of the abdominal parietes is completed search the region for the bifurcation of the uterus.

There will generally be found a fetus, lying partly in the body and partly in one of the cornua of the uterus. Cut onto this, making two-thirds of the incision into the body and the remainder along the horn into which the fetus extends. This incision should be shorter than the one in the abdominal wall, as the uterus will stand considerable stretching and the smaller the incision the less suturing will be required to close the rapidly contracting and elusive uterine walls.

Grasp one lip of this opening with the compression forceps

and hold it up to the abdominal opening during the delivery of the fetuses. More freedom of manipulation will be enjoyed and better results obtained if the removal of the fetuses is affected with the uterus in situ, but the opening into this organ should be continually held up to that in the abdominal wall to prevent the spilling of fetal fluids into the peritoneal cavity.

The incisions should be made with the patient in the dorso-recumbent position; this should be changed to the latero-recumbent for the removal of the fetuses and the suturing of the uterus.

Remove all of the fetuses through the one incision and do it with the fingers only, after breaking the membranes with the finger nails. The cords may be neatly and safely severed with a small emasculator, such as is used in the spaying of bitches. Be careful to get each set of fetal membranes immediately after the fetus to which they belong.

Trace each horn to the ovary to make sure that no fetus in any stage of development or decomposition is left.

While the abdomen is open, work as rapidly as is consistent with good surgery, so as to prevent undue chilling of the viscera. Disregard the natural dark brown debris from the placenta, as this will discharge from the vagina during the few days following the operation just as it would after normal labor. Quickly close the uterine incision with interrupted catgut sutures, bringing the serous coat in contact with itself as in other abdominal work. Close the external incision with interrupted sutures of linen, which should be removed on the third and fourth days. Have the hind parts supported by the limbs while suturing the abdominal parietes in order to prevent the involvement of the viscera by the stitches.

Put the bitch and the puppies in a crate and send them home, cautioning the owner to pay no more attention to them than as if normal labor had taken place. Too much examining and handling of the mother and her beloved 'babes' will often bring disastrous results. Never keep a bitch at the hospital after this operation, as she will not take good care of the puppies amid strange surroundings. The writer had an unhappy experience



along this line after his first cesarian operation, when the mother failed to own her puppies and killed them all. Since that the patients have all been sent home immediately the operation has been completed and a clean record is the result.

This operation has been a routine one with the writer for the past two years; some of the bitches have bred again with no trouble and in one instance it was necessary to resort to the cesarian operation a second time; in this case the uterus showed no scar from the previous incision.

Puppies brought into the world by this method are stronger than those born through the natural channels in the presence of any form of dystocia.

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THE HARRISON NARCOTIC BILL.—We take great pleasure in advising members that the Harrison Narcotic Bill was finally passed by the Senate on Saturday, August 15.

The provision requiring the medical profession to keep a detailed record was entirely eliminated, so that the bill as passed by the Senate is in a most satisfactory form so far as the medical profession is concerned. We are having that part of the *Congressional Record* which treats of the final consideration of this bill in the Senate reprinted, and will send you a copy thereof in the near future.

We wish to advise also that the Pomerene amendment was rejected, which rejection we favored most earnestly. The bill now goes to a conference committee representing the House and the Senate. As the conferees may only consider differences between the bill as passed by the House and as passed by the Senate, no further question can arise as to the incorporation of the record provision.—(*The American Association of Pharmaceutical Chemists.*)

GROWING HOGS IN MISSISSIPPI is the title of a circular issued by the Mississippi Agricultural Experiment Station, by E. M. Ranck; embracing breeding, feeding, care and management, to supply the frequent requests for information relative to the above subjects by the people of Mississippi. The information is clear and to the point, and bound in a little booklet of 17 pages.

## REPORTS OF CASES.

### HYSTEROCELE.

By E. A. VAN ANTWERP, D.V.M., Brookfield, Mo.\*

In response to an apparently urgent request from our worthy secretary, that I do something to help out on the literary programme of this meeting, and after promising to do what little I could toward it, I decided that the subject of *Hysterocele* might be of interest.

Many practitioners have seen very few cases of it, if any at all. This condition, which is a falling through the abdominal muscles of the gravid uterus and contents, lodging beneath the common integument which, from its stronger nature and more elastic property, allows the abdominal contents to lodge beneath it, giving the appearance of a great tumor suddenly formed on the underside of the abdomen. Usually pregnancy is pretty well advanced before this condition develops, and there are generally some causes in addition to the usual weight of the uterus under normal conditions. In some cases, there is found an excessive amount of a whitish, semi-gelatinous substance. In one subject, which I helped relieve at time of delivery, I removed more than ten gallons of this gelatinous substance. It will be seen that this condition will come about from excessive weight of the uterine organ and contents as well as extrinsic causes, such as violent blows, kicks from other animals, and very frequently from a degeneration or atony of the abdominal muscles. In a few cases I have had the privilege of examining *post mortem*, the muscles appeared soft and flabby, fiberless and almost colorless, showing evident lack of nutrition. It is surprising to what extent ruptures of these tissues can extend, and yet the animal make a voluntary delivery. Where interference is required delivery certainly is a laborious job.

Not wishing to take up too much of your time I will describe a few cases I have seen, as it seems to have been my privilege to have met with quite a number of them in my several years of practice.

*Case Number One*—A large roan mare was found early one morning greatly swollen under the abdomen, the swelling ex-

\* Presented to the Missouri Veterinary Medical Association at Excelsior Springs, July, 1914.

tending well forward to the fore limbs. The owner had informed me that the mare was in a terrible plight, and she really was. The lower line of the abdomen was below the knees. There was a considerable edematous swelling, stiffness, and the animal could not be induced to move except by using a whip. She was placed in a small lot, fed and cared for, and in due time delivered her colt without assistance. No further efforts were made to breed this mare, but she continued to do some work on the farm, and after three years I lost sight of her.

*Case Number Two*—A large bay mare, a most singular case, was placed in small paddock expecting her to foal within a week or so. She was seen at night, apparently all right; the next



CASE NUMBER FIVE.

morning was found with foal at her side and her abdomen enormously distended downward. The rupture of the wall must have produced enough disturbance of the uterus to bring on the delivery of colt. However, in this case, the mare and colt succumbed in twenty-four hours.

*Case Number Three*—In May, 1910, I was called to see a standard bred, brown mare. This mare was within a couple of weeks of foaling time. During the preceding day she had shown a swelling just in front of the udder, which had increased so rapidly, the owner became alarmed, and well he had cause to be. At the time I saw the mare, the lower line of the abdomen was half-way between the hocks and the ground, and

continued dropping during the next few hours until it almost touched the ground. A mare in this condition is something very striking to see. The great depth from the vertebrae to the lower line of body, and with the width of body, makes an animal look as if she had been compressed by machinery. In one case one could readily feel a hand pushed in from the opposite side. This last case lived only about forty-eight hours from the time when the first changes were noticed.

*Case Number Four*—This was in the winter of 1911. A bay mare was enormously distended, and the condition supposed to have been due to flatulence, and as a result I was called to see the case. I found her very weak, the visible mucous membrane pale, almost colorless. The animal was scarcely able to walk, and the pulse imperceptible. The animal was not expected to live very long, and in this the owner was not disappointed. She lived three days and I had an opportunity to make a *post mortem* examination. The gravid uterus lay in contact with the skin of the abdomen. By making an incision carefully, I found the uterus enormously distended with liquids which I caught in a bucket, some fourteen gallons, and I absolutely believe there was a barrel of it, for it spread over the ground for several feet around the mare.

*Case Number Five*—The most recent case, and last one I will describe, is one with which I had experience this present season. The usual supposition was that this one had what farmers call colt founder. The animal was very stiff, moved with great difficulty, and a considerable swelling extended forward between the fore limbs. This swelling would pit on pressure similar to a swelling of purpura. The swelling gradually went down, leaving only a deep and flat sided animal, who looked as if her ribs were broken off at the vertebrae, and hanging down, owing to the compression in by weight of contents. This case developed about four weeks before foaling time, and although the mare was watched quite closely, they missed the proper moment, and the colt was delivered without assistance. I was called a few hours later to remove the placenta. The mare has done very nicely and the colt is in good condition. I have with me a few post card views of this last case, and if of interest, I will leave them with the secretary for those who wish to see them. The little eminence seen in the lower line about one-third of the way forward is the nipple.

I have been recently informed that *Case Number One* was in foal two years ago by aid of capsule breeding and was de-

livered of a live colt, that lived until about two months old. I do not think it practical to breed them, however.

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### UNUSUAL CASE OF CONSTRICTION.

By H. M. HAMILTON, D.V.M., Paris, Ky.

*"Careful observation, makes a skillful practitioner, but his skill dies with him. By recording his observations, he adds to the knowledge of his profession, and assists by his facts in building up the solid edifice of pathological science."*

Was called at 12:30 p. m. to see patient, a two-year-old bay gelding, trotting bred.

*History*—He had gorged himself previous night on rye, and was found a short time before I was called, sick. He had probably been sick all night.

*Symptoms*—Standing quiet except occasionally pawing, head lowered, ears dropped, pulse imperceptible, body, legs and ears cold; no peristaltic action.

In fact he presented a picture of death at first sight, and that being my prognosis, and not far distant, I waited for the end, which came in about forty-five minutes.

*Diagnosis*—Volvulus or rupture.

*Postmortem*—Abdominal cavity was filled with dark bloody fluid, showing extensive inflammation of peritoneum and portions of bowels. A portion of the peritoneum connecting the second or left division of great colon to fourth or right division had formed a loop, which was constricting about a three-foot loop of the ileum; this portion of the small intestine being in state of moist gangrene, with a small rupture and small amount of ingesta in peritoneal cavity.

This was very interesting to me, especially the autopsy, and hope it will be to the readers of the REVIEW.

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### COW MOOSE IN LABOR—REFUSES ASSISTANCE—DIES.

By F. A. McCORD, V.S., Edmonton, Alberta, Canada.

Am enclosing a photo of cow moose found by A. J. Aylesworth of Edmonton, while out taking moving pictures of moun-

tain sheep and goat. This was in the province of Alberta, along the foothills of the Rocky Mountains, six hundred miles north



of the American boundary line. Cow lived three days after being found and would not allow any assistance.

### RUPTURE OF STOMACH IN THE HORSE.

By CRITTENDEN ROSS, D.V.M., New York, N. Y.

Called in the presence of a horse two hours previous to his death, the following symptoms were presented. The animal had a depressed expression; he stood with feet wide apart, head hanging near the ground, pulse about 70 and respirations shallow. Rectal examination revealed the feces of natural shape and consistency and no palpable intestine presented any abnormality. The pulse gradually grew weaker and the visible mucous membranes more anemic until the end came.

*The History of the Case* was that the horse had been in good health, never refusing a feed, but after his last feed he had been turned into a small lot, with his mate, to water. After drinking, the two companions began to play, but shortly the one ceased, and went to one side of the lot, laid down, and gave



evidence of pain. Later he arose and remained upon his feet until just before the end.

*Post Mortem Findings.* Upon opening the abdominal cavity a blood colored fluid rushed out; the incision was made sufficiently large to allow of an inspection, and then the different portions of the digestive tube carefully examined. As the region near the stomach was approached, cracked corn and oats were met. When the stomach was finally reached it was found to have a rent along the greater curvature ten to twelve inches in length.

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### TWIN FOALS—HORSE AND MULE.

By L. O. LAMB, D.V.M., Newbern, Tenn.

Am sending you a photograph of twin foals, a mule and a horse, the result of a double service by different animals the same day. This is the first instance of the kind to come under



my observation. The horse colt is rather inferior in conformation, but has the advantage of the mule in size; being 34 inches high. The mule is only 30½ inches in height but of good conformation. They are now one month old. The photograph was taken when they were two days old.

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### TWINS?

By GEO. C. FAVILLE, D.V.M., North Emporia, Va.

Messrs. Parker and Harris, of Greensville County, Virginia, are large land owners, and, in a small way, cattle raisers. The

cattle run in a large swamp pasture. Most of the adult cattle are cows belonging to the tenants on the place and to the proprietors of the plantation, and are milked more or less regularly, the calf being allowed to take its share of the milk at milking time.

On April 23, 1914, a speckled cow gave birth to a spotted heifer calf. The after-birth came away normally in the usual time and the cow nursed the calf and was milked regularly and gave her usual flow of milk.

On May 29, 1914, this cow gave birth to a spotted heifer calf marked exactly like the first one, and is now nursing them both. They are marked exactly alike, but show the difference in age and a difference in size. Each calf, from appearance and development, was carried to full term.

In my experience this is very unusual. The facts as stated can be easily proven. Mr. Harris, who owns the cow, is one of our most reputable farmers, and he vouches for the absolute truth of the above.

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### QUADRUPLETS.

By R. A. GREENWOOD, V.M.D., Painesville, Ohio.

I recently met a most interesting case, and certainly an unusual one. A grade Jersey cow, four years old, gave birth to four calves, one bull and three heifers. The youngsters were all perfectly healthy and all took nourishment soon after birth.

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DR. BOLTON GOES TO CUBA—Dr. Meade Bolton, Washington, D. C., sails from New York on August 29 for Cuba, to conduct a campaign against hog cholera, which is causing great losses to men engaged in that industry on the island, the doctor having recently accepted a position from the Agricultural Department of Cuba.

DR. OSCAR SCHRECK ADVOCATES MUNICIPAL MEAT INSPECTION.—Dr. Oscar Schreck, of New Haven, Connecticut, has pointed out to the Board of Finance of that city the advantages of municipal meat inspection, and we trust that New Haven will not be slow to get in line with the many progressive cities throughout the country who are establishing up-to-date city abattoirs.

## ABSTRACTS FROM EXCHANGES.

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### ENGLISH REVIEW.

By Prof. A. LIAUTARD, M.D., V.M.

RADIAL PARALYSIS, SEQUEL TO CASTING [*A. J. Cattell, M.R.C.V.S.*].—Seven-year-old cart mare was thrown for the extraction of a diseased molar. It was the sixth tooth; was hard to remove and was taken off in two pieces. When the mare was allowed to get up, the near foreleg refused to work, the elbow dropped and the extremity was held forward in a bent position. The mare was put in slings showing at first great pain, sweating and unable to straighten the leg. After two weeks the elbow region became considerably swollen and the triceps muscle was very tense. On consultation a diagnosis of fractured humerus was suggested. Three weeks later the mare stood on her leg, she was taken out of the slings, walked out with a little dragging of the toe, and three days after was working quite sound.—(*Vet. Rec.*)

PECULIAR CALVING CASE [*A. F. O'Dea, M.R.C.V.S.*].—Under this heading the author records his experience in a case where, when he visited the cow, the subject of it, he found that the intestines were protruding from the vulva. By examination through the vagina he felt a large cone-shaped body, hairless and very slippery. Failing in his attempt to find a leg or the head, he advised the cow to be slaughtered and on examining the carcass he met with a monstrosity. The abdominal organs were developed and hanging loose. "The skin from the abdominal region was reflected back over the quarters and formed a sac. From this reflected cutaneous portion three legs were hanging, developed from the carpus only downwards. The head and neck seemed developed from the sacrum, the head lying beside the tail, and attached to this portion of the trunk there was also one fully developed foreleg. The hind legs were normal. The thorax was absent."—(*Vet. Record.*)

EMBOLISM AND THROMBOSIS IN A FOAL [*Horace L. Roberts, F.R.C.V.S.*].—Four-day-old Suffolk punch foal was born

apparently quite healthy. The navel did not bleed much and no ligature or dressing was applied. The animal, two days after birth, refused to suck. She showed great dyspnea, laid down and was unable to rise or to stand if lifted up. The temperature was 101 degrees F., pulse 50 and weak. Death took place on the fifth day. At post mortem there was found, dilatation of the heart, embolus attached to the pulmonary semi-lunar valve, thrombus extending along the pulmonary artery and also embolus attached to the aortic semi-lunar valve with a thrombus extending along and occupying the greater portion of the lumen of the aorta and its subdivisions. There was no evidence of omphalo-phlebitis nor thrombus of the umbilical cord.—(*Vet. News.*)

HEART DISEASE AND AORTA RUPTURE IN BROOD MARE [*By the Same*].—Fifteen-year-old mare had a live foal. She appears well the next day until evening when she began to paw, she stretched out, shivered, reared up, and came over on her back quite dead.

Post mortem: On opening the thoracic cavity, showed a large clot of blood; rupture of an aortic aneurism had taken place. The heart was hypertrophied and dilated, myocardium in a state of degeneration and reddish-yellow color. The aortic valve was thickened and ulcerated, the mitral thick but not ulcerated.—(*Ibid.*)

SABULOUS DEPOSIT IN A GELDING [*G. G. Rushie Grey, M.R.C.V.S., B.Sc.*].—Cart gelding, seven years, has always been in good health. He grows restless in his box, strikes his abdomen with hind legs, and seems in great pain. Pulse is 50, temperature 103 degrees F. Rectal examination is negative. Colic drench is administered. Next day condition is worse. Temperature up 107 degrees. Peritonitis is diagnosed. Death takes place the next day. Lesions of peritonitis are extensive, fluid contents smell urine and a great quantity of sabulous deposits is observed, some of which are as big as pigeon's eggs. The bladder was empty and ruptured. Urethra is occluded with deposits. Chemical analysis of these proved it to consist almost entirely of carbonate of calcium.—(*Vet. News.*)

URETHRAL CALCULUS IN A STEER [*By the Same*].—Devon steer, two years old, was being fattened for slaughter. He has

had difficulty in micturating lately and has passed no urine for two days. He is restless, switched his tail frequently and shows a temperature of 102 degrees F. Rectal examination reveals a distended bladder and the urethra was much distended also at the ischial arch. Operation by puncture of the urethra at the perineum was performed followed by the escape of a large quantity of urine and immediate relief. The urethral incision had the coats of the urethra stitched to the edges of the skin and in a week was cicatrized, leaving a space sufficiently large for the steer to micturate, which he did, assuming the position of a cow. The steer continued his fattening and was slaughtered, when a calculus was found in the lower third of the urethra.—(*Ibid.*)

X-RAYS IN CANINE PRACTICE [*John Taylor, M.R.C.V.S.*].—This record was illustrated by two photos of the abdomen of a fox terrier, taken by an X-ray expert, after being shot. The photos show very distinctly the bullet and its location in the abdomen. The dog showed a small wound on the right flank in line with the point of the ilium. He was fairly bright and showed pain only when forced to walk, which he would do on his forelegs. X-rays were taken and an operation advised. When the abdomen was open, such lesions of acute peritonitis with laceration of the caecum were found that chloroform finished the operation.—(*Vet. Record.*)

SUBCUTANEOUS SARCOMA IN A HORSE [*R. Eaglesham, M.R.C.V.S.*].—Twelve-year-old black gelding had numerous growths in the subcutaneous tissues which got larger lately. They were on the neck, shoulders, on the sides of the ribs and the hind quarters. The largest about the size of a pigeon's egg. They were not attached to the skin, but showed prominently under it. The animal was in good health and seemed not to be incommoded by them. He did his work. They kept enlarging and some were removed for microscopic examination; they proved to be of sarcomatous nature. The case was not followed out and no further examination could be made.—(*Vet. News.*)

RHEUMATIC TENDONITIS [*By the Same*].—Six-year-old cart gelding and a six-year-old cart mare. Both animals had been ill with influenza and both had apparently recovered. On resuming work both showed lameness which followed a chronic course in much the same way. In both the hind legs were affected. At

first the lameness was not marked, they were stiff, had cramps—they improve in action by exercise. Both animals were disabled for seven weeks. Enlargement and thickening of the sheaths of the tendons were the principal outside manifestations. There was such a condition of the tendons that knuckling became well marked. Notwithstanding external as well as internal treatment both horses had to be destroyed.—(*Ibid.*)

RENAL CALCULUS IN A MARE [*By the Same*].—A case of chronic nephritis with formation of calculi in a twelve-year-old van mare. For two years she had passed blood casts in her urine intermittently, otherwise did not seem to suffer, showing no systemic disturbance. She kept in good condition and worked. Lately she has lost appetite and flesh. No change in her pulse or temperature; she, however, had great thirst and micturates often, in great quantity. Her urine has a bad smell. The mare has no swelling about her, no pain anywhere, no colic and rectal examination was negative. Finally considered incurable, she was destroyed, after having been ailing two and a half years. At the post mortem there were found lesions of chronic nephritis with sabulous matter in the pelvis of both kidneys, with small calculi in the left. The ureter and bladder were inflamed and had their mucous membrane thickened.—(*Ibid.*)

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### FRENCH REVIEW.

By Prof. A. LIAUTARD, M.D., V.M.

GLANDULAR LYMPHOSARCOMA AND AORTIC OSSIFICATION IN A HORSE [*Mr. Roquet, Adjunct Professor*].—This was a surprise of autopsy. The subject had no history and was used for practical exercises of the technic of post mortem. On opening the abdominal cavity and removal of the intestines an enormous globular mass, bigger than a man's head, was found in the sub-lumbar region. It was in connection with the psoas, the aorta, the posterior vena cava, the kidneys and the ureters. Forward it reached the trunk of the great mesenteric artery, the cross of the coecum and folded colon. Behind it extended to the quadri-furcation of the aorta, and involved the origin of the iliac arteries. By its inferior face it is adherent to the great mesentery. It was an enormous lymphadenoma, forming an ovoid mass that weighed 6 kilog. 200.



By its superior plane, it presses upon the aorta and vena cava. The artery shows the lesions of *ossifying* aortitis. In the vena cava there is a small thrombus. The right kidney is atrophied and its ureter is flexuous, describing an S-form from its origin until it enters and runs through the neoplasm. There is hydro-nephrosis of the right kidney and corresponding hypertrophy of the left.—(*Journ. de Zootech.*)

ÆGAGROPILE IN SMALL COLON KILLS A HORSE [*Major C. Lesbre, Army Veterin.*].—Nineteen-year-old horse, robust, in fair condition, without history of preceding abdominal troubles, is one morning taken with colics. These are slight, but accesses of violent pain are followed by more or less long periods of quietness. When in pain, the horse paws with one forefoot or the other, looks at both flanks, lays down slowly and carefully, rolls and lays on his back. He makes unsuccessful attempts to defecate. Laxatives and pilocarpine are administered. The condition remains the same. Chloride of barium produces only insignificant expulsion of diarrhetic feces. For a week the same manifestations prevail until finally the case grew worse and death occurred after an illness of 12 days. Post mortem revealed the lesions of acute peritonitis and on the fourth portion of the large colon a motion 30 centimeters long, through which is detected an ægagropile completely closing the opening into the small colon, which is entirely empty. The ægagropile is rounded, mamillated on its surface and weighed 3 kilog. 100 gr. It was formed of vegetal fibres extremely fine, with a nucleus surrounded by concentric layers.—(*Bullet. Soc. Scien. Veter.*)

ANOTHER OBSERVATION OF LARVAR CYLICOSTOMA [*MM. Gillet and Teppaz, Army Veterinarians*].—Six-year-old mare had a rather unsatisfactory condition, she has had a cold lately. She is kept under observation and is soon unable to do her work. She shows symptoms of severe anemia. The intestine works normally. Appetite is delicate. The mare has no colics, no hyperthermy, no hypothermy. Tonic treatment is prescribed. Cacodylate of sodae, simple serum; caffeine, etc. No result is obtained. Mare dies after an illness of twenty-three days. Post mortem: Eight litres of yellow serosity in the abdomen; in the intestines more or less semi-liquid alimentary matter in which swim an enormous quantity of cyclostomas. Mucous membrane congested. In the coecum and colon numerous black dots indi-

cating the presence of cysts containing larvae or embryos of cylicostomas. With magnifying glass many of these are seen, gorged with blood, and not adherent to the mucous. Lymph glands are hypertrophied. The other organs are normal. The mare evidently died of vermiform anhemia caused by cylicostomas.—(*Ibid.*)

POLIOENCEPHALITIS SIMULATING RABIES IN DOG [*Dr. L. Marchand and Prof. G. Petit*].—Crossed German bull, ten months old, is ill. No appetite, light cough, running nose, eye soiled with purulent thick, greenish discharge, he stands unsteady, moves poorly, hesitating, hyena-like, and has a tendency to drop on his hind quarters. The diagnosis is certain. Distemper, characterized by troubles of anterior respiratory passages and complicated with nervous manifestations. No bronchitis nor pneumonia. Rapidly the nervous symptoms become more severe. In three days he is paralyzed on the hind quarters. The appearance of the dog is peculiar; with his mouth open, his glances acute, the dog at the slightest noise trying to bite at any imaginary object. For every one round he has rabies. The symptoms lasted two days, followed by death. The post mortem revealed only congestion of the brain with lesions of polioencephalitis. No *corpuscles of Negri* were found, notwithstanding careful researches.—(*Rec. de Med. Vet.*)

GENERALIZED ALOPECIA IN A HORSE [*Major Rendu, Army Veterinarian*].—Chestnut mare has been sickly and in bad condition for some time, yet the appetite is normal, and the mare lively. The coat is dull, the body is clipped, not the extremities. Arsenic treatment established, and rich diet prescribed. After a while the condition becomes alarming. The temperature goes up to 39.3 degrees, the pulse is accelerated and almost imperceptible, the heart's beatings are irregular, 112 a minute. Swellings of the extremities take place. Over the parts not clipped, the hairs come out easily, drop in mass, the dermis is exposed, shrunk. Then the eyelids are affected, and gradually the falling off of the hair spread, so that on a level with the head, the neck, the ribs, the abdomen, the rumps, the extremities are with hairs, and even the long hairs of the mane and tail came off with the slightest pulling. The condition of the mare grew worse and death soon followed. Post mortem revealed all the lesions of severe anhemia with a hypertrophy of the liver complicated with sub-acute gastro-enteritis.—(*Rec. de Med. Vet.*)

TRYPANBLUE IN BOVINE PIROPLASMOSIS [*Sanitary Veterinarian C. Mellis*].—The records of a number of cases of that disease which were treated by the author and whose results justify the following conclusions: Out of 23 sick individuals, in various states, 19 recovered. Four only died. Leaving a proportion of 82.6%. The fatal cases occurred in animals that received the drug by subcutaneous injections. To this method the author attributes the failure of the treatment. At first he used the subcutaneous injections whose action is slow to take place; the method to recommend is by intravenous injections, easy to perform and rapid in its effects. With the subcutaneous the effect is observed only after 24 to 36 hours, while by the veins it shows after 12 to 18. Besides this, the cutaneous injection may be followed by large abscesses or enormous swellings, which are not observed with the intravenous method. Pilocarpine added to the solution of trypanblue stimulates the absorption of the medicamentous mixture and prevents the constipation so common in piroplasmosis. Some cases considered as certainly fatal have recovered by trypanblue treatment, which would have died by any other form of treatment. There never has been any bad case of relapse, even with animals kept in infected centers, a kind of immunity seems to follow the treatment.—(*Rev. Vet.*)

WIDE PHARYNGEAL PERFORATION BY ABSCESS OF STRANGLES [*Deteau and Fournier*].—Three-and-a-half-year-old colt has severe acute pharyngitis, with swelling of both parotids. He roars loud. Treated he is relieved. Two submaxillary abscesses being open. Few days later he has a relapse. New abscess forms on the left parotid which at one time threatens suffocation and requires tracheotomy. Exploring trocar introduced through the parotid swelling brings out few drops of stinking pus. Puncture with actual cautery is made and by laceration of the tissues a large quantity of grumelous pus with food is allowed to escape. The finger introduced in the wound enters into a large cavity filled with oats and bran. It is thoroughly irrigated and cleaned. It communicates with the pharynx—when the horse drinks the water escapes by the cutaneous opening of the abscess. Repeated cleaning out with salted boiled water, with liquid diet, were prescribed and the case made a final radical recovery in a few days.—(*Rev. Vet.*)

## CORRESPONDENCE.

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### ARRIVAL IN PARIS AND LONDON.\*

(From the REVIEW's Special Staff Representative to the Congress.)

Paris, July 22, 1914.

#### *Editor AMERICAN VETERINARY REVIEW:*

We reached Cherbourg too late Friday night to land, but were taken off the steamer by small boat Saturday, the 18th, at 7 a. m., and our six hours' ride to Paris was most interesting. The buildings, both houses and farm, constructed of stone with tile or heavy slate roofing, look comfortable and substantial. The well-kept yards and the large green fields give the landscape an appearance of pronounced neatness. Agriculturally, the land appears exceedingly productive—great, broad pasture fields separated either by streams or hedges, speckled with large, well-nourished red and white cattle, is indeed a pleasing sight to any one who cares for animals or agriculture, after eight days of imprisonment between sea and sky. The arrangement of the farmers in communities, or little villages where their splendid gardens are all located, and where their methods and difficulties can be discussed, and the unpleasantness of rural loneliness is overcome, would *prima facie*, at least seem an improvement over our rural arrangement. We arrived at Paris about noon, and scarcely had we entered the city until we all discovered the unscrupulous, grafting Parisien. To express with any satisfaction our contempt for this class of Frenchmen would require too much space.

Some of the things that are particularly striking to an American veterinarian are the great numbers of horse cabs used on the streets of Paris—horse cabs everywhere, but oh! oh! the *kind* of horses; the poor, lame, overworked, half-starved, decrepit brutes must really wish for the day when they will be taken to the equine abattoir, a place we visited this afternoon, and learned that about two hundred of these animals are slaughtered there weekly, under veterinary inspection. The veterinary inspector advised us that the principal causes of carcass condemnations are due to pleuro-pneumonia and cancerous condition

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\*Continuation of story begun on page 604, August issue.

of the kidneys, with an occasional case of tuberculosis and glanders.

Horse flesh is often prescribed by physicians for invalids; a fat horse has less market value per pound than thinner ones.

We have visited many points of interest, including Napoleon's and Pasteur's tombs. That indeed is wonderful, all inlaid with mosaic and gold, depicting his wonderful accomplishments for mankind in determining the cause and methods of control of many plagues and applying the pathway of research on a truly scientific basis. The honor done this *true scientist* can better be realized when one sees on all sides, either military display or mute evidences of a nation of war and plunder. We also visited the Alfort Veterinary School. The grounds and botanical garden, where many drugs are grown, are very fine, but the buildings, which are rather old, are surpassed by many of our American schools.

All of our party are well and you will probably hear from some of them from time to time.

Very truly yours,

J. F. DEVINE.

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LONDON, August 2, 1914.

*Dear Editor*—Since writing you at Paris, under date of July 22d, we have visited some further points of interest there. I think the last thing I wrote to you about was the equine abattoirs. We next visited the public market and an abattoir (at Paris), where bovines and swine are slaughtered. The inspection here, as in the equine abattoir, is under the Prefect of the Police; politics does not influence the holding of office and an officer is not dismissed without cause, in the way of inefficiency or violation of regulations. Inspectors are retired at the age of sixty years. There are two market days, and all animals are examined on foot, and again after slaughter. There is also maintained a laboratory where questionable material is brought for further examination. The methods of slaughter and handling the animals are slow and antiquated as compared with a large abattoir in America. There are about 10,000 cattle, 26,000 sheep and 1,200 pigs slaughtered here weekly. All animals after slaughter are inflated by compressed air, similar to the way we inflate auto tires; this it is claimed facilitates skinning the animals and gives plumpness to the flesh. The plumpness was very noticeable in the case



of calves heads. The head is cut off, without being skinned, is then scalded in a vat of hot water and scraped by a revolving instrument driven by electricity. This instrument is very similar to a large drill, such as is used in the States for drilling or counter sinking holes in steel; using it sideways as a razor, it beats a Gillett safety all to pieces. These calves' heads are kept in vats of cold water and the inflation and extreme whiteness gives them a gruesome appearance, such as a body has that has been in water for several days.

The sheep's feet are also scalded and scraped, then packed in bundles by women and are sold on the market for making salads, etc.

The cattle we saw at the abattoir resemble our short horns. They are white and red and white in color. The white breed is known as the Charollais or Nivernais, and the red and white as the Normande.

Calves are tied with ropes on small trucks for slaughtering and skinning—age of slaughter from five days up.

The most frequent causes of condemnation are tuberculosis, when generalized, foot and mouth disease (sometimes quite prevalent), when there is evidence of great exhaustion or emaciation, also anthrax occasionally.

The method of slaughtering swine was indeed a curious sight to us. The animals are driven into a section of the abattoir called "*The Hell*." This section is again divided into pens. A man with a mallet and woman with a frying pan and pail awaits them. The man follows a pig about whacking away at its skull until he stuns it, he then turns it half on its back and cuts its throat. The woman using the frying pan to catch the blood and passing it into the pail, to be used in making pudding or wurst. After a half dozen or so are thus slaughtered a thick layer of straw is put down, several pigs laid in a line on this straw, and another layer of straw strewn over them and lighted. These bright fires burning in the dark building all charred with soot and the rows of carcasses gives an appearance to the place that probably served as the nomenclature. The pigs are now loaded on low trucks, the woman gracefully tossing one end and the man the other. They are then taken out and hung up, the charred and unburnt hair scraped off of them. As can be supposed, the carcass is not the clean looking one of the hog that has been scalded and then scraped. Dr. Morel, who was in charge, then took us to the laboratory and showed us a case of naval tuberculosis taken from a calf carcass that morning.



He then showed us the carcass, which presented generalized tuberculosis.

Here let me relate one of the pleasantest incidents of our visit to France. As many REVIEW readers personally know, Dr. Liautard is spending the summer at his country home in close attendance upon his invalid wife. But the good fortune of again seeing the grand "Old Man" fell to Drs. Ackerman and Mayo; and since he could not be with us in Paris, he gave them a letter of introduction to Dr. V. Evens, of No. 8 Rue Monsieur Prince, Paris. Dr. Evens took us under his wing as we started for the abattoir. After we finished here, he left us at our hotel and called for us again after lunch in a large touring car. We rode down the Champs Elysees, through the Bois de Bologne Park, stopped at the La Pre Catelan restaurant, a beautiful spot in the woods where the elite of Paris gather in the evenings for amusement and refreshments. In the rear of the restaurant is an immaculately kept cow stable—chairs and tables on one side and cows and goats on the other. Here the animals are milked and the patrons are served the fresh fluid. From here we went to the Pasteur experimental farms at Versailles, and were introduced to Dr. Prevost, who explained in detail the work being carried on; also showed us the plain old rooms in which Louis Pasteur lived and the bed in which he died. It was at this farm that the first work on rabies begun, and some of the first cages used by Pasteur to confine inoculated dogs are still in use. At the close of the delightful day we were again taken to our hotel and, as had previously been arranged, we joined Dr. Evens as his guest for dinner that evening at the famous restaurant La Peyrouse, built in 1665. The quaint dining room, furnished in maroon and gold, has sheltered many diplomats and noblemen. It is now a noted rendezvous for those who enjoy rare delicacies served in faultless style.

Dr. Evens greeted us with the pleasant statement that many of the noted medical men of France and all Europe had dined here, and that he had brought to it the noted medical men of America. Evidence of mein host's popularity could be seen on all sides, and while not surprised we were nevertheless delighted to see on the menu cards of the house certain savory dishes designated *La Docteur Evens*. That our American friends may know how our veterinary friends in Paris entertained us, I am enclosing the menu served.\* Those who can not read

\* Not received.

French should have it translated. Old wine and then some more wine, after cigars and coffee. Dr. Evens, in a delightful way, complimented American veterinarians, their loyalty to the profession and the progress they are making; he spoke in Spanish, which was translated into English by Dr. Mayo. Several of our party responded, which was in turn translated in Spanish by Dr. Mayo, and Dr. Evens again translated it into French for the benefit of Dr. Morel, who had also been invited to be with us. And the ladies. Oh, yes! They were there, too. Ask any of them how they enjoyed it. I will simply add that earlier in the day Dr. Evens had said that *possibly* he would visit America this autumn. After entertaining the ladies he was *quite certain* that he would visit America soon.

After assuring our host through Dr. Mayo that in America we would style him a "Prince of good fellows," and drinking a toast to our old friend, Dr. Liautard, we departed amid courteous *au revoirs*; an accomplishment at which no Nation excels our French cousins.

After spending a week in Paris we left for Brussels, Belgium. The country in general seemed to change but very little. On arrival at Brussels, we immediately noted the absence of the ubiquitous taxi of Paris, and also that there were but few horse cabs in use here. The beautiful, big Belgian draft animals that we saw substantiated the wisdom of our American dealers in coming to this little country for substantial draft animals. We spent another day in Antwerp, and then off for Holland. Our introduction to the Netherlands is worth mentioning. When we reached the frontier at a city named Rosendall, some of us strolled about the station watching the inspection of baggage, others sat complacently in their compartments, when suddenly, by a volley of salutes and gesticulations, the guards finally made us understand that the train bound for Utrecht was pulling out and that we should have changed cars. We immediately started a small riot, held up the train and began throwing our baggage out of the windows and ran for the train, much to the amusement of the natives.

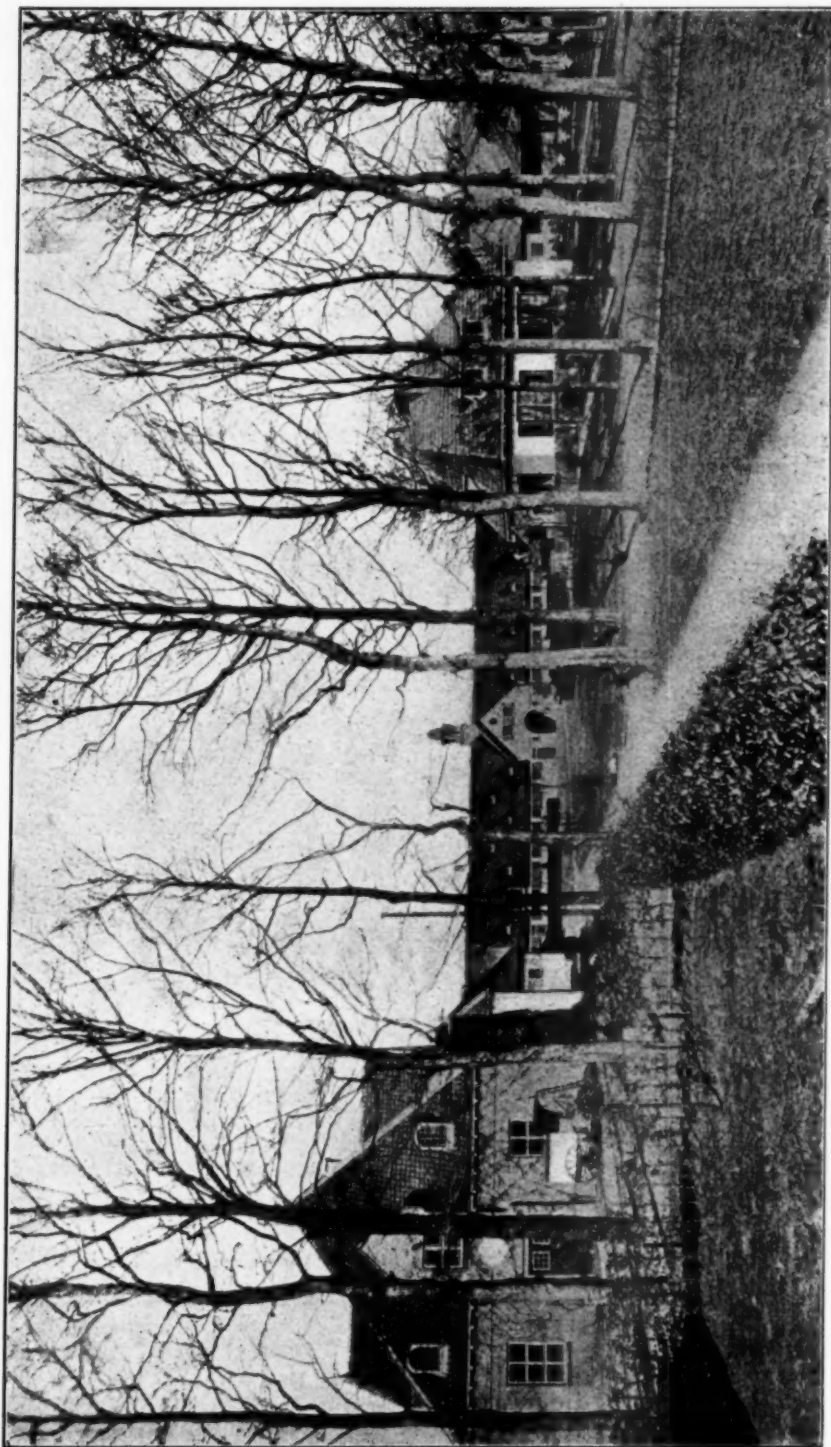
Our ride through Holland was very interesting. The level lowlands divided by hedges or streams, with the banks thrown up to form dikes, show the effects of liberal moisture and intensive cultivation. We crossed five rivers or canals and many small streams from the frontier to Utrecht, a distance of about forty miles. The variety of crops in a single field exemplifies the intensive agriculture practiced in this country. One can see

in a field of a few acres perhaps a crop of wheat or rye as high as the average corn in the States, a crop of roots, potatoes, beans, peas, etc., and still another piece of clover or alfalfa that would make a Californian farmer jealous. It is quite apparent that the feed bill is but little worry to the Hollander. The limestone or brick houses with thatched roofs, the immense wind mills, the open air spots where the large Holstein cattle are milked, the dogs hauling the milk to the farm house or market, are all sights that the reading American anticipates and enjoys.

The Dutch farmers (this includes the women), short of stature and rugged, in their quaint dress and wooden shoes, impress one as a diligent, honest people.

Our first stay in Holland was at Utrecht; here we were joined by the party that sailed June 10th. Those who have been three thousand miles from home in a strange land can well imagine the happy reunion of this evening. After exchanging experiences we of the supplementary tour retired, feeling thoroughly convinced that the further some people traveled the more elastic their descriptions grew. Ask Dr. Marshall the size of the strawberries they were served with at a certain banquet!

On leaving Utrecht we went by rail to Naarden, where we were met by Mr. Floris Vos, a delightfully courteous gentleman; we were conveyed in carriages to the Oud-Bussem Farms, of which Mr. Vos is director. The buildings are all brick with thatched roofs of the mansard style, the doors are painted green, the shutters bright red framed with white stripes and dark green border. The style and colorings of the buildings, surrounded by beautiful lawns and hedges, present a farm scene beyond description. The interiors of the dairy barns are finished in white tile for about four feet high, and a smooth plaster above. The summer barn is kalsomined with a dark blue tint which is said to discourage flies. The entire handling of the milk is sanitary and would compare favorably with any of our modern dairies in the States. A veterinarian and a bacteriological chemist are employed on the farm. From here we went to Holland's famous seaport, Amsterdam. The canal system here, as in other Dutch cities, attracts one's attention at once. It seems as if everybody was pushing or pulling a boat large or small. These canals are used also as sewer receivers. The water being changed every three days by pumping the contents over the dykes into the sea and then allowing water from the sea to fill them again. We went for a ride up one of the canals, stopped at Monnikedam, one of the noted so-called dead cities. This was a flourishing



Front view of mansion "Oud Bussem," showing a workman's dwelling to the right and the dairy house to the left.

city before the large area east of it was reclaimed from the sea, but it is now an inland town and is gradually being deserted. We also stopped at Edam, where the famous cheese is made, then to the Island of Marken—this is a fishing village where the people have changed but little in their customs since the beginning of the Fourteenth Century. The men wear large bloomers and wooden shoes, the women voluminous skirts. The boys and girls are dressed the same until the age of six, with the exception that the girls wear plain aprons and the boys flowered or figured ones. After six the boys wear trousers and may have their hair cut. The girls' hair is allowed to grow until the age of sixteen, when they have the back of the head shaved, leaving two strands in front which either hang down on either side or are tucked under the white cap, a universal head dress. The inhabitants of this Island rarely marry other than a native. It is claimed that this has greatly weakened the race and reduced longevity, and that it is rare to meet a native over sixty years old. Women of thirty appear older than the average American woman of fifty. Tuberculosis is said to be very prevalent here notwithstanding the coarse, rugged appearance, and that the women lead an out of door life, sharing the manual labor with the men. The houses are low and consist of one room or, in rare cases, an additional small one. Here an entire family lives. The sleeping apartments being a berth-like arrangement in a closet built in the side of the house. The room or house is kept shining clean, and tourists are eagerly invited in, with a hope that a coin will be dropped in the ever present saucer on the table. All occupants leave their shoes (wooden) outside the door. On this Island, as in Amsterdam and most places in Holland, there are no wells. The water in the canals is more or less salty, so the only drinking water to be had is the rain water caught in pails or cisterns or that imported (when means will permit) from other countries. Never was the saying: "Water, water everywhere and not a drop to drink," more significant to the American tourist than here. Our next day, July 31, was spent at the Hague; and, strange enough, on our trip to the Carnegie Peace Palace we saw evidence of military unrest on every side, but we were not to be deterred. After seeing this famous spot, we then visited the summer palace of Queen Wilhelmina, one of the rooms of much interest to us was the one termed the "Orange room." Here the paintings are by Rubens and his students. On one of the doors is depicted Hercules and Minerva, and between them is approaching the Goddess of



Peace. This painting was done in 1648 and this is the door through which the members of the first Peace Congress passed over three centuries later, 1899. The following day gave us more concern as we were informed that orders for mobilization of Holland troops had been issued and that no train would be available during the day. We immediately packed our belongings and waited for our hustling Eichhorn to find a way for us to quit Continental Europe. We finally got a train for Holland Hook about 7 p. m., and after delays of various kinds we landed in Harwich, England, twelve hours late, and London Sunday afternoon.

Now for the Congress,\* which we fear will suffer severely on account of war conditions. The present belief is that most of the noted foreign veterinarians will be either drafted into service or be unable to secure transportation.

(I have purposely neglected mentioning anything concerning our visits to veterinary colleges, since Dr. Eichhorn and his party have seen many more than we, in fact they have visited some of the finest in the world. To do justice to these colleges and the abattoirs would require an article of much length and I am informed that Dr. Eichhorn and some of his party intend preparing an article on these subjects on the return steamer trip for our American friends to read. This will surely be interesting, as we will then have the combined views and expressions of able critics.)

Yours truly,

J. F. D.

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PUBLISHED PROCEEDINGS—We are just in receipt of the published proceedings of the annual and semi-annual meetings of the Colorado Veterinary Medical Association, edited by Secretary Newsom. These two meetings furnish material for a 32-page report that is very interesting and instructive.

MARRIED—Dr. A. O. Rustad, Fergus Falls, Minnesota, was married on Wednesday, August 19, 1914, to Miss Hilda Huseby, of that place. All their veterinary friends express hearty congratulations through the REVIEW.

THE CLINIC OF THE CONNECTICUT VETERINARY MEDICAL ASSOCIATION AT WATERBURY was large and varied; more cases being presented than could be taken care of during the day.

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\* Published under Society Meetings on page 694.



## ARMY VETERINARY DEPARTMENT.

### A COMMISSIONED VETERINARY CORPS FOR THE ARMY.\*

By GARRISON STEELE, M.D. (University of Paris), Dr. Med. Veter. (Berlin), Chicago.

Thomas Babington Macaulay, the brilliant English essayist, in order to give his statements a show of familiarity, was wont to say that such and such a fact "is known to every schoolboy." In like manner, though more truthfully, it may be said that the struggle of the medical profession in the army for recognition and appreciation, and its success within recent years, is known to every physician in America. Were it not for the action of the surgeon general of the army of the United States, there would be no place here, perhaps, for reference to so cheerless a topic as a similar struggle to bring into being a commissioned veterinary corps in the army. For thirty-five years, with regular bills in Congress, that profession had been unremittingly struggling toward that end, without tangible result and almost without visible effect. On January 6, 1913, in the Sixty-second Congress, in the debate in the House of Representatives on a like measure, which went unanimously through the House, though there was no action in the Senate, Mr. Tillson, of Connecticut, evidently expressing the thought of the surgeon general, asked why the proposed veterinary corps should not be placed in the medical department. Up to that time there had never been a hint that such a proposal would be advanced, much less entertained; indeed, the leaders of the movement for a commissioned veterinary corps apparently were taken by surprise. Yet this should not have been so, because in a number of the smaller nations of Europe, notably Sweden, army veterinarians all belong to the medical department and have commissioned standing.

The true attitude of the medical department of the United States army toward the veterinary service came out clearly in the first session of the present Sixty-third Congress. On May 1st of last year Mr. James Hay, of Virginia, chairman of the House Committee on Military Affairs, himself reintroduced the

\* Reprinted from the New York Medical Journal for July 4, 1914.

bill, To Consolidate the Veterinary Service, U. S. Army, and Increase Its Efficiency (now known as H. R. 4541), and it was according to custom, turned over to his committee for the first reading. It was sent for recommendation to the War Department. When it was returned to Mr. Hay, a number of highly important letters were attached; one from the Secretary of War; another from the chief of the quartermaster corps. The third and most important of all, as far as this article is concerned, was from the surgeon general of the army, which we reprint verbatim:

War Department,  
Office of the Surgeon General,

Washington, June 12, 1913.

Memorandum for the Chief of Staff:

Subject: Bill H. R. 4541, to consolidate the veterinary service of the Army and increase its efficiency.

Veterinary medicine is a learned profession, with a voluminous periodical and permanent literature of its own. For efficiency, there is the same necessity that the horse doctor should be learned as for the man doctor, and as his patients are not able to speak and describe their symptoms, a greater amount of scientific accuracy and acumen is necessary for a correct diagnosis. The therapeutics and pharmacy of veterinary medicine are largely the same as for the medical service, and in Europe, where veterinary medicine has the dignity and standing of a learned profession, it has made valuable contributions to our knowledge of the causation of diseases. It is believed that it can not be placed on a high standard of efficiency without long continued application of the same agencies which have raised the medical corps of the army to its present standard. Conspicuous among these is the system of examination for admission to the service and for promotion. Others which may be mentioned are the liberal supply of literature and appliances and a close touch maintained with the progress of the profession in civil life.

It is believed that these things can be accomplished for the veterinary service only by making it a part of the medical department and permitting it to share the administrative machinery of the medical corps. This would not only conduce to the elevation and efficiency of the veterinary service, but would also be in the interest of economy, as all of its supplies could be most advantageously purchased, cared for, and issued through the machinery of the medical department. As regards the administrative question of supplying veterinary surgeons to the quartermaster department, it is believed that no difficulty would arise, as the veterinary officers needed for that service could be placed under the orders of the quartermasters at depots, etc., where their services were needed, or ordered to report to the chief of the quartermaster corps for such service and duty as he might desire to assign them. The establishment of the veterinary service as a corps of the medical department, like the dental corps and the army nurse corps, is not proposed for the aggrandizement of the medical department, but because it is believed to be the only way in which that service can be raised to a fitting plane of dignity and efficiency such as it has reached in European countries and in the armies of the great military nations.

For these reasons the draft of the bill submitted by the War Department on January 6, 1913, a copy of which is attached to the General Staff Report No. 8443, herewith, is believed to be much better calculated to increase the efficiency of the sanitary service of the army than the bill H. R. 4541 herewith,

GEORGE H. TORNEY, *Surgeon General.*

Since this policy is adhered to in the *Report* of the Surgeon General, United States Army, to the Secretary of War for the year 1913, in which, on p. 169, we find a repetition of the language of the letter, we may take it seriously as the undoubted attitude of the medical department toward the veterinary service, and may examine the statements in the surgeon general's letter. This can be done with sanity and modesty; for the statements are not ours—they emanate from a high ranking medical authority whose words are indisputable.

At the outset the letter says: "Veterinary medicine is a learned profession, with a voluminous periodical and permanent literature of its own." Of inestimable value are the words of the surgeon general on this subject at this time. The medical department is the only department which could and does appreciate this point—a point which has been entirely lost sight of in the army for the reason that heretofore no one with knowledge of the fact, and authority enough in the army to back up such a statement, has been frank enough to admit it, nor firm enough to take a stand upon it. Whether one considers the veterinary profession in the old world or the new, a learned profession it certainly is. In Europe, in Continental Europe especially, veterinary medicine is part of the national educational system, provided for and endowed by the State, where the purpose is to train men as a national asset for public service in the army or in civil life. National veterinary colleges, like those of Berlin in Germany, Budapest in Austria, Alfort near Paris in France, and the veterinary college of Milan in Italy, are thus linked to the national government, and the products, the aspirations, the standards, the ideals of these old world institutions are known and venerated wherever the tenets of medicine are fostered and cherished. In America also, more and more, the veterinary colleges are becoming part of the State system of education, as at Cornell University and the University of Pennsylvania, and the pattern is derived from the old world. Neither this, nor a knowledge of the voluminous periodical and permanent literature of veterinary medicine is known to the army, other than by the medical department. Veterinary medicine is a technical branch removed from military men's ken of thought. The periodical literature is in many languages—richest in German, French and Italian; while the permanent literature, on established scientific fact and practice, though not so voluminous as that of human medicine, is at once the delight and despair of its students.

Next the surgeon general in his letter states why, for efficiency, the doctor who treats animals should be perhaps more a man of learning than he who treats man. It is certain that the medical sciences in which each must be grounded are the same for the veterinarian as for the physician. Whatever groups of studies, in the veterinary and medical curricula, are compared, the foundation and superstructure are similar. Besides, as the surgeon general's letter says, difficulties beset the path of the practice of the veterinarian that are unknown to the physician. Diagnoses of lameness in the horse, for example, are fraught with numerous perplexities. The difficulties increase with the complications of diseases; because, as the surgeon general reminds us, the animal is dumb, and greater acumen is necessary for correct diagnoses.

Continuing, the surgeon general says that the therapeutics and pharmacy of veterinary medicine are largely the same as for the medical service. This is true. The drugs are mostly the same, though the doses and effects, especially the latter, are very different. The difficulties, moreover, arising from the varied posology for the different domesticated animals, the various species, are at least equal to those that arise in the treatment of human beings. The surgical principles are the same; though comparative anatomy is fraught with far greater difficulties than human anatomy.

Further, the letter says that in Europe, where veterinary medicine has the dignity and standing of a learned profession, it has made valuable contributions to our knowledge of the causation of disease. A large proportion of the men who in Europe have been in veterinary work all their lives and have become distinguished as investigators, teachers, even as practitioners, have the degree of M.D. Such men, working exclusively in the field of veterinary science, have added glory to veterinary medicine. Koch, Schütz, von Behring, von Ostertag, Pasteur, are names to which probably the letter refers, for all have contributed knowledge of the etiology of veterinary disease. Similar conditions have prevailed in America; witness the work of Theobald Smith, who discovered the cause of Texas fever in cattle and thereby suggested the danger from insects as carriers of disease, which led to the discovery of the means of propagation of malaria and yellow fever. De Schweinitz, Marion Dorset and V. A. Moore are other Americans renowned in the same field.

Furthermore, says the document we are quoting, the appli-

cation of the agencies which have raised the army medical corps to its present high standard of efficiency will also raise the veterinary corps. This means the entrance examinations, work in the army medical school, promotional examinations and the rigorous surveillance of the work of medical officers. The framers of the veterinary bill had in mind all these things. What better model, aiming to produce efficiency in the veterinary service, could there be than that of the medical corps? A liberal supply of literature and appliances in the veterinary corps, as in the medical corps, is certainly necessary. This means power to learn and power to apply what is learned. Such an opulence in the furnishing of means of acquisition of knowledge and work would contrast with the stinted supplies at present furnished to veterinarians. The keeping in close touch with the progress of the profession in civil life has been the making of the medical corps and it will be the making of the veterinary service.

There are also mentioned the administrative advantages to the Government to be brought about by the proposed attachment of the commissioned veterinary corps to the medical department; the economical purchase of veterinary supplies, their care and distribution through the machinery of the medical department. These are medicines, instruments and material, appliances and biological products, all of which, with due regard to the needs of the veterinary corps as indicated by the veterinarians themselves, can be attended to very well through the medical department. Detailing veterinary officers of the medical department to the quartermaster corps is a mere administrative point which can be attended to without friction.

Finally, the surgeon general's letter states that the plan of attaching the veterinary corps is not proposed for the aggrandizement of the medical department; that would be saying that the medical department believes that coal ought to be carried to Newcastle. The medical department is big enough, important enough and influential enough to be under no necessity of aggrandizing itself by absorption of other services or parts of services. It simply invites the veterinary corps to share in its sanitary and medicochirurgical work. The letter closes with the statement that the attachment proposed is the only way to give dignity and efficiency to the veterinary service as in Europe. There the efficiency and concomitant dignity of the veterinary services is due to the commissioned standing—rank, which there signifies advancing knowledge, is attested by promotional ex-



aminations from grade to grade. The medical department knows that until this is done for the United States army veterinary service there is no possibility of raising its standards.

The astonishing achievements of the medical department of the army, since it has been given power and reward for its service, are known to the whole world. Press despatches from London\* speak of the dinner given in honor of Surgeon General Gorgas on March 23d by the medical profession of the British capital, at which were present Sir Thomas Barlow, president of the Royal College of Physicians; Viscount Bryce, Sir William Osler, Arthur William May, medical director of the Royal navy; Francis N. Champneys, president of the Royal Society of Medicine; Sir Rickman Godlee, president of the Royal College of Surgeons; and Sir William Launcelot Gubbins, director of the British army medical service. This tribute to General Gorgas was in recognition of his brilliant achievements in the field of preventive medicine. He had just returned from South Africa, whither he had gone by invitation of the British Government to investigate problems in sanitation amongst the 200,000 Kaffirs employed in the Rand gold mines. His suggestions for prevention of pneumonia there, and of malaria in Rhodesia, will be of lasting benefit. Coming to him at the very summit of his fame, the recognition of his extraordinary professional judgment points to what has preceded. His work in Cuba, later in the sanitation of the Canal Zone, where yellow fever was banished from the Isthmus, and malaria kept in almost complete restraint, made possible the building of the Panama Canal, and caused his services to be sought by the government of Ecuador in its sanitary problems.

Of similar value to the Government, the medical department informs Congress, will be recognition of the veterinary service. It advises that the veterinarians of the army be formed into a corps under the provisions of a statute which will standardize the work. The veterinarians in the service at present are just so many units; the medical department has declared most emphatically that only just recognition of a commissioned veterinary corps can overcome the dissipation of energy and bring proper returns of economy and efficiency in advanced veterinary work. Mr. Hay, chairman of the House Committee on Military Affairs, voicing the same thought when the bill unanimously passed his

\* The *London Daily Mail*, eulogizing Brigadier General William C. Gorgas, Surgeon General, U. S. A., says: "Perhaps of all living Americans, he has conferred the greatest benefit to the human race. The whole world, particularly the British Empire with its large tropical possessions, owes him a debt which Britons are proud to acknowledge."



committee on February 2d, said: "The veterinarians of this country are a body of highly trained and intelligent men who have made and are making great strides toward progress in their profession; and it is not reasonable to expect that the Government can secure the best talent of the profession unless some fitting and substantial recognition is given it."

Such are the views of the medical department of the United States army. This article is meant as an examination and exposition of the letter of the surgeon general, and is not a piece of special pleading. The plan was proposed by the medical department itself, for reasons which it gives, and because of statements for the truth of which it vouches. Let Congress listen if it will.

WHY YOU SHOULD BE INTERESTED IN THE NATIONAL ASSOCIATION ALLIED HORSE INTERESTS.—It aims to maintain the supremacy of the horse in sport and industry, and to prove that the horse is an economical factor in business. Its officers and directors are men who are earnestly interested in improving conditions connected with the breeding of horses. It can be readily conceived what an association with such aims, with a sufficiently powerful membership, can accomplish. It has done a great deal in the past year for the horse interests throughout the country, and with the establishment recently of a monthly periodical, the *Horse Lover*, will accomplish still greater things for the horse and allied interests in the coming year. Every veterinarian in America ought to support this organization by his membership in it. Write to Mr. George H. Webb, secretary, Industrial Trust Co. Building, Providence, R. I., for particulars, and note the names of the men upon the stationery that comprise its officers and directors.

A PRELIMINARY REPORT ON THE PRODUCTION, ACTION AND THERAPEUTIC EFFECTS OF LEUKCYTIC EXTRACTS, is the title of an article received during August by R. A. Archibald and Gertrude Moore, Oakland, Cal.; reprinted from the *Archives of Internal Medicine*.

THE TRANSMISSION OF HOG CHOLERA BY BUZZARDS, is the title of an article by Dr. Charles F. Dawson, in *Florida Health Notes*, for June, 1914, the official bulletin of the Florida State Board of Health.

## SOCIETY MEETINGS.

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### THE TENTH INTERNATIONAL VETERINARY CONGRESS, LONDON.

The Tenth International Veterinary Congress was opened by a social function in the form of an informal reception in the Grand Ball Room of the Hotel Cecil, London, on Sunday evening, August 2, 1914; Sir John McFadyean and Lady McFadyean receiving. A delightful evening was spent in getting acquainted and partaking of refreshments. A goodly representation of Americans was present, but the effect of military disturbances upon the attendance at the congress was already apparent. Many prominent members who had reached London during the day found at their hotels information which caused them to secure passage on the first train or steamer, to convey them back to their respective homes without delay. The business session was opened by Sir John McFadyean, on Monday morning, August 3, in the Central Hall, Westminster, who announced that it would be impossible for the Honorary President, the Right Honorable Walter Runciman, to be present. Therefore the first order of business was the election of a presiding officer, and Sir John was unanimously chosen by the association. In his address from the president's chair, Professor McFadyean reviewed the history of the Congress and its purposes, and closed his remarks by extending a warm welcome to the foreign members, and expressing his regrets at the lamentable conditions which caused the absence of so many of them. The report of the Honorary Secretary of the Organizing Committee was then presented by Sir Stewart Stockman, as follows:

#### REPORT OF THE HONORABLE SECRETARY.

Mr. President, Ladies and Gentlemen:

At the Eighth International Veterinary Congress, held at Budapest in 1905, a wish was expressed that the Tenth International Veterinary Congress should be held in London in 1913 in recognition of the facts that international veterinary congresses were first initiated by an English veterinary surgeon, John Gamgee, and that the Tenth International Veterinary Congress would fall to be held fifty years after the first which took place at Hamburg.

Before leaving England to attend the Ninth International Veterinary Congress held at the Hague in 1909, the representatives of Great Britain approached the British Foreign Office through the Board of Agriculture and Fisheries, asking to be authorized to say that the Tenth International Veterinary Congress would be invited to meet in London. Authority was given to make this statement at the Hague, where it was agreed that the Tenth International Veterinary Congress should be held in London and that the two British members of the Permanent Committee—Sir John McFadyean and Mr. Stockman—should, in accordance with by-laws 5 and 28, be entrusted with the formation of the Organizing Committee. It was explained, however, by the British delegates that arrangements had been made to hold an international medical congress in 1913, and it was decided that the Tenth International Veterinary Congress should be summoned for 1914, as it seemed inadvisable that two such important congresses should be held at the same time and place.

An organizing committee was immediately formed in the United Kingdom for the purpose of making arrangements for the Tenth International Veterinary Congress.

As it has not been the custom in the United Kingdom to finance these congresses by government funds, the Organizing Committee had to undertake the arduous and exceptional duty of collecting money by subscription to meet the expenses of organization. An appeal was issued to members of the Royal College of Veterinary Surgeons in Great Britain and her Colonies asking for subscriptions, and the veterinary societies throughout the empire undertook to assist the Organizing Committee in their task of advertising the Congress and collecting subscriptions. The appeal was responded to in the most generous way, and it became evident a few months after the undertaking was started that a sufficiently large sum would be available to enable the Congress to be carried to a successful issue. It was evident to the Organizing Committee that the British veterinarians had made up their minds that if the Tenth International Veterinary Congress did not surpass previous congresses it would be through no fault on the part of British veterinarians.

The Congress has also received very considerable support from leading agricultural societies and from individual agriculturists. The Foreign Office in London issued invitations to the various states asking them to be represented by delegates, and the Colonial Office, with the same purpose in view, issued invitations to the various dominions and crown colonies.

The President of the Board of Agriculture and Fisheries and the responsible officials of his department have extended throughout the greatest sympathy and support to the Congress, and through representations made by Mr. Runciman it was decided on behalf of his Majesty's government to officially recognize the Congress by giving a dinner in its honor to the various delegates. The corporations of the city of London have also been kind enough to extend their hospitality to the Congress.

As the time for the Congress drew near it was found necessary by the Organizing Committee to appoint a small executive committee, which was charged with the duty of carrying the Congress through. The work of both committees has been enormous, and as honorary organizing secretary, I hope it will not be out of place if I venture here to express my great indebtedness to all the assistant secretaries and members of both committees who have worked with me in the most arduous and self-sacrificing manner for the success of the Congress.

Many ladies have shown the greatest interest in the Congress and exceptional thanks are due to the Ladies' Committee who were good enough to make arrangements for the entertainment and enjoyment of the lady members of the Congress.

I think reference should also be made to the office of the Permanent Committee, which has recently been fixed at the Hague under the patronage of the government of the Netherlands. Owing to the establishment of this office it has been possible for the officials of the Tenth International Veterinary Congress to hold frequent communication of an official kind with the secretary—Dr. de Jong—who has always been ready to supply valuable information and advice to the British Organizing Committee.

In accordance with the by-laws, the British committee drew up a list of subjects for discussion at the Tenth Congress. This list was presented for consideration at a meeting of the Permanent Committee of the International Veterinary Congresses, held at Lyons in October, 1912, and with certain modifications which were given effect to, the list of subjects was approved.

In accordance with by-law 7, the honorary secretary was authorized to invite the formation of national committees in the various countries, and a circular letter embodying this request was issued in March, 1913, to the various members of the Permanent Committee, together with a list of the subjects for discussion. At the same time it was requested that the National

Committees should furnish the British Organizing Committee with a list of suitable reporters in each country from which the British Organizing Committee might make a selection.

The number of subjects for discussion on the program amounts to 23, and 89 reporters from the various countries consented to act.

The number of governments which consented to send delegates amounts to thirty, and in addition fourteen British and Colonial Governments have consented.

Various veterinary schools, agricultural colleges, agricultural societies and municipalities were also invited by the Organizing Committee to send representatives. Owing to the regrettable position of affairs in Europe, however, many of these delegates and representatives cannot arrive in London, while others have found it necessary to return home. It is impossible, under the circumstances, to inform the meeting regarding those present. Inscribed in the list, however, there are about 1,500 members. The number of ordinary members is about 1,300. The number of lady members is nearly 200, and there are nearly 50 extraordinary members.

A complete program of the Congress is available to every member. This program deals with the arrangement and order of the subjects for discussion; the entertainments and excursions, and all such matters in connection with the Congress, and it is therefore unnecessary for me at this stage to make further reference to these subjects. I may say, however, that the Permanent Committee have decided that Item 6—Disinfection of Wagons—which was to be discussed in accordance with the resolution of the Ninth Congress, shall be deferred until the next Congress, as no report has been furnished.

I have also to announce that a report by a committee, appointed by the Ninth Congress, consisting of Herr Hoogkamer, Dr. Van Es, Herr Rickman and Sir S. Stockman, on the Oversea Transport of Animals, was considered by the Permanent Committee, and it was decided that it should be published and circulated to members of this Congress.

In conclusion, Mr. President, ladies and gentlemen, I would like to be allowed on behalf of my fellow-workers for the success of this Congress to express the deepest regret at the deplorable situation which has arisen in Europe. I think I will be expressing their views by saying that, although we feel that we have been compelled to bow to a force majeure which nobody could have foreseen, and which has occasioned the absence of



many brilliant representatives of veterinary science who had arranged to take part in this Congress, we do not grudge the efforts which we have put forth in the interests of veterinary science and the veterinary profession of the world.

At the conclusion of the secretary's report, several foreign delegates were called upon by the president. In their responses they expressed their appreciation at being invited to take part in this important function. The Congress then adjourned to meet at 10 a. m. of the following day.

August 4, 10 a. m., president, Sir John McFadyean, opened the morning session by briefly reciting the conditions that confronted the Congress. He then presented a resolution that had been drawn up by the officers. The resolution was read in English, French and German, suggesting an adjournment of the morning session, to meet again at 3 p. m. to transact such business as would bring the Congress to a close. The resolution was supported. The Congress again convened at 3 p. m., and after a business meeting, as prescribed by the constitution, the chairman, with unmistakable emotion and regret, gave utterance to the words which brought the Congress to a close. The disappointment and regret of the whole-hearted British veterinarians was evident on all sides. It seemed as if a pall had come over everybody; and in silent sympathy the few foreigners present—mostly Americans—left the hall with a feeling of mingled pride and sympathy for the great efforts put forth by the home officers and members, and for their fortitude in shouldering their disappointment. During the closing session the chairman announced that the reception which had been planned for that evening would be held, and he expressed a hope that all members and their families would be present. This delightful function occurred at the Natural History Museum, where the members had the rare treat of listening to the most charming music by the string band of the Royal Regiment of Artillery while delicious refreshments were being served. It is unfortunate that our British friends could not have heard the complimentary expressions voiced, but the REVIEW assures them that their generous hospitality and good fellowship did not fall on barren soil.

J. F. D.

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OFFICIAL STENOGRAPHIC REPORT; INCLUDING PRESIDENT'S ADDRESS AND RESPONSES BY FOREIGN REPRESENTATIVES.

The official opening meeting of the Tenth International Veterinary Congress was held at the Central Hall, Westminster, S.



W., on Monday morning, the 3rd Aug., Sir John McFadyean, President of the Organizing Committee, occupying the chair. Although many of the foreign delegates, particularly the French, German and Austrian, had returned home owing to the outbreak of the war, there was an excellent attendance, the delegates from other countries appeared in large force, and most of the prominent veterinary surgeons of the United Kingdom and the Overseas Dominions attended.

The President—Ladies and gentlemen, to my great regret I have to announce that we have just learned from the Honorary President of the Congress, the Right Hon. Mr. Walter Runciman, President of the Board of Agriculture and Fisheries, that he is unavoidably detained, and it will therefore not be possible for him to attend here and declare the Congress open. I am quite sure that you share the regret which the members of the Organizing Committee have felt during the last few minutes with regard to his absence. We must proceed with the formal business of this meeting, and I therefore, as Chairman of the Organizing Committee, declare the Congress open.

#### ELECTION OF PRESIDENT OF THE CONGRESS.

Prof. A. E. Mettam—Gentlemen, on behalf of the Organizing Committee, I have the greatest possible pleasure in proposing that Sir John McFadyean be elected President of the Tenth International Veterinary Congress. (Cheers.)

Maj.-Gen. F. Smith, C.B.—I have great pleasure in seconding that.

The resolution was carried by acclamation.

The President—Ladies and gentlemen, permit me to thank in the first place Prof. Mettam and Maj.-Gen. Smith for having nominated me as President of this Congress, and in the second place to thank the members most heartily for having elected me. I need hardly say that I recognize the great honor which attaches to this office. I must add, however, that I am filled with misgivings as to my ability to discharge the duties as they ought to be discharged, but I can only say that no effort will be lacking on my part to discharge those duties in such a way as will gain your approbation.

I may, perhaps, be allowed a few minutes in which to trace the history of the series of gatherings of which this is the tenth.

The first International Veterinary Congress was held at Hamburg from the 14th to the 18th July, 1863, and it was convened on the initiative of the late Prof. John Gamgee—a fact which

is a legitimate source of pride to British veterinary surgeons. In the month of April of that year Prof. Gamgee had issued a circular, in which he invited teachers in the various veterinary colleges, and practicing veterinary surgeons from all parts of Europe, to attend a Congress to be held in Hamburg during the ensuing summer, and requested those who intended to be present to communicate with Prof. Hering, the Director of the Veterinary School in Stuttgart. In this circular it was pointed out as a highly important fact that, hand in hand with the increase in commerce between the different countries of Europe, and with the increased facilities for the sale and rapid transport of the cattle necessary to meet the growing food requirements of Western Europe, there had been during the preceding twenty years an increased prevalence of contagious diseases among cattle, sheep and other farm animals. Notwithstanding this fact there was a lamentable absence of reliable statistical information regarding the mortality among animals caused by plagues which were spread by the international trade in cattle, an ignorance which was held to be responsible for the fact that some States had not yet taken any adequate steps to protect their interests in this connection, and which also explained the injury inflicted on certain countries by the efforts of others to diminish their losses by exporting their own infected animals. The circular went on to express the hope that the representatives of veterinary science from all parts of the Continent would unite in an endeavor to formulate a uniform system of dealing with the contagious diseases of animals. To this end it was recommended that those desiring to take part in the Congress should, by contributing papers or otherwise, supply information regarding the following:

(1) The extent to which the different contagious diseases occurred in their respective countries.

(2) The import and export trade in cattle for slaughter, and the directions in which contagious diseases tended to spread in each country.

(3) The most successful means of treating the different contagious diseases.

It was suggested that after consideration of the information thus obtained the Conference might adopt resolutions for transmission to the various Governments as the basis for legislation with a view to the prevention of epizootic diseases. Gamgee was not very hopeful that the recommendations made by the Congress would receive the attention which they merited from the different European Governments, but he expressed the

conviction that the opportunities which such a Conference would provide for discussion and interchange of opinions could not fail to advance veterinary science throughout the whole of Europe.

When the first Congress met in Hamburg in 1863 it was attended by 102 members and Dr. Hering was elected President, and Prof. Gamgee, one of the two English representatives, was elected one of the vice-presidents. At the first meeting it was resolved that rinderpest and contagious pleuro-pneumonia should first be discussed, and that other subjects should be considered only if time permitted.

The conclusion arrived at with regard to the first of these diseases was that past experience justified the view that the incubation period did not exceed nine days, and that the then customary 21 days period of quarantine might with advantage be shortened.

A series of resolutions were passed with regard to contagious pleuro-pneumonia, the most important being (1) that the disease should be combated by the slaughter of all diseased animals and by the inoculation of those which had been exposed to infection, and (2) that within one year after the end of an outbreak the sale of the surviving animals should only be permitted for slaughter.

At its fourth sitting the Congress debated a highly important subject, viz., the question as to which diseases of animals should be included in a general law with regard to contagious maladies. The list eventually adopted included rabies, anthrax, glanders, and farcy, foot-and-mouth disease, mange or scab, rinderpest, contagious pleuro-pneumonia, sheep pox, malignant foot rot in sheep, and the disease of horses which is now generally known as dourine.

Other subjects considered at the Congress were the best methods of dealing with sheep pox, the desirability of each country publishing statistical information regarding the occurrence of infectious diseases within its borders and regarding the traffic of animals, and finally the desirability of founding special veterinary research institutes for the investigation of animal diseases.

It does not appear from the report of the Congress that Prof. Gamgee took a very active part in the discussions, but he contributed to the proceedings a remarkably interesting document which is printed as one of the appendices to the report. In this report he called attention to the enormous losses which had during recent years been caused in Great Britain and Ireland by con-

tagious diseases introduced from abroad, and he gave figures which appeared to justify the view that the annual loss from disease among the cattle, sheep and pigs in Great Britain and Ireland exceeded £6,000,000.

In the concluding sentences in this report he states that during the previous eight or twelve years he had spared no effort to call attention of his countrymen to the manifold dangers connected with the importation of cattle from abroad. It was, he said, far from his desire to suppress the foreign trade in animals altogether, but he predicted that if the British Government in collaboration with those of the Continent did not keep a sharp eye on the health of their own as well as of foreign cattle, the trade in foreign animals must within a very short time come to an end, which is one of several remarkable prophesies made by Prof. Gamgee that have since been fulfilled.

The second of the International Veterinary Congresses was held at Vienna in August, 1865, and it was attended by 160 members. On this occasion rinderpest was again under consideration, and it was again recommended that the period of quarantine against the disease should be reduced from 21 to 10 days. Recommendations were also made with regard to the importation of hides, horns, etc., from countries in which rinderpest prevailed. A new subject was introduced in the shape of rabies, and there was also some discussion as to the laws with regard to warranty, and the occurrence of anthrax or Siberian plague in Russia.

At the third Congress, which was held at Zurich in 1867, rinderpest and pleuro-pneumonia figures on the programme, and, for the first time, the subject of professional education and the organization of a proper veterinary service in each country was considered.

The fourth Congress was held at Brussels in September, 1883, and the programme again included contagious pleuro-pneumonia, professional veterinary education, and the organization of veterinary services, and, for the first time, tuberculosis in cattle was made one of the subjects for discussion.

The fifth Congress was held in Paris in 1889, and the members discussed the following question: The formation of an international sanitary service, the inspection of meat, and tuberculosis.

The sixth Congress was held in Bern in September, 1895, and the principal subjects then discussed were pleuro-pneumonia, international regulation of trade in cattle with the object of pre-

venting contagious diseases, inoculation with a view to diagnosis or for the purpose of protecting or curing animals, tuberculosis, swine fever and swine plague, the use of the flesh of tuberculous animals from the point of view of public health, and the influence of veterinary science on social development and prosperity.

At the seventh Congress, which was held at Baden Baden in August, 1899, the measures to be taken against the spread of the disease by international trade in cattle was again down for discussion, and for the first time foot-and-mouth disease appeared in the programme of these congresses. Other subjects debated on this occasion were meat inspection, anatomical nomenclature in veterinary science, tuberculosis, including the use of the flesh and milk of animals affected with the disease, epizootic diseases of the pig, and the relationship of human and veterinary medicine.

At the eighth Congress, which was held at Budapest in 1905, there was a more extensive programme than in the case of any of its predecessors, and for the first time the proceedings were conducted in sections as well as in general meetings. For the first time also tropical diseases of animals were brought under discussion. The other important subjects debated at this Congress were serum therapy and infectious diseases, foot-and-mouth disease, tuberculosis, parturient apoplexy, the application of tuberculin and mallein and swine fever.

The ninth and last Congress preceding this was held at the Hague in 1909, and the subjects discussed at the general meetings were swine fever and swine plague, the rôle of veterinary surgeons as experts in zootechnical questions, the sanitary control of milk and the obligatory inspection of meat, the prophylaxis and pathology of protozoan diseases, avian tuberculosis in relation to tuberculosis in mammals, Governmental efforts against tuberculosis and the modes of infection in these diseases. A large number of other important subjects were specially considered in the sectional meetings.

It might almost be said that the holding of congresses, National or International, is one of the characteristics of the age we live in. There have not been wanting critics who maintain that as a means of advancing knowledge the Congress system has within recent years been overworked, and that there is a marked tendency for congresses that are ostensibly scientific to degenerate into social gatherings where the chief object of the arrangements is to afford pleasure and entertainment to the members. I venture to say that no such charge could properly be brought



against the International Veterinary Congresses, although the advantages to be derived from social intercourse between the members have never been overlooked. The intervals at which they are now held are not so long as to destroy the useful link which is formed by the attendance of many of the same members at successive congresses, nor so short as to exhaust the list of subjects worthy of consideration at an international gathering, or to render discussion stale.

With regard to the success of the Congresses in promoting the objects for which they were founded, there can be no difference of opinion. Their primary purpose is to bring fresh views and supposed new discoveries in any department of veterinary science to the crucial test of criticisms by the higher experts. They thus serve to correct errors and to diffuse knowledge among the members themselves. It would be a mistake, however, to represent these congresses as existing solely for the purpose of eliminating error and extending knowledge among the members of the veterinary profession. The proverb that prevention is better than cure applies as forcibly to animal as to human diseases, and a glance at the programmes of past Congresses shows how fully that has been realized by the members of the veterinary profession, since the great bulk of the papers and discussions have been concerned with the prevention of contagious diseases among the domesticated animals. But prevention nearly always requires concerted action enforced by legislation, which, in turn, must have the intelligent support of the people interested if it is to be effectual. One of the purposes of the congresses must therefore be to spread to the widest possible extent among the interested laity a knowledge of the fundamental facts regarding the causes of preventible diseases. There is no need to be dissatisfied with the work of past congresses in this respect, for to their influence one can trace many of the laws which during the last fifty years have been passed with a view to exterminating or holding in check the epizootic diseases of animals, including those which are communicable to human beings. It would unfortunately be easy to show that incalculable sums of money would have been saved by some countries had their Government paid earlier heed to the resolutions passed at some of these congresses.

As one intensely anxious for the success of the present Congress, I can only express the hope that as a mark of the advancement of veterinary knowledge and the veterinary profession throughout the civilized world, it may deserve to rank with its predecessors.



I propose to ask the Hon. Secretary to give a short account of the work of the Organizing Committee in making preparations for this Congress, but before I sit down I should like, on behalf of the Committee, and indeed of the whole of the veterinary profession in the United Kingdom, to extend a warm welcome to those foreign members who have honored the Congress with their presence. (Cheers.) I need hardly say that we deplore the fact that their number has been reduced owing to the lamentable international developments of the last few days. (Hear, hear.)

Ladies and gentlemen, it is part of the business of this opening meeting to elect the other officers of the Congress on the recommendation of the Organizing Committee. I therefore have the honor to propose that Prof. Mettam, Prof. James McCall and Prof. Bradley be elected Vice-presidents of the Congress.

The motion was carried by acclamation.

The President—I have next formally to propose that Sir Stewart Stockman be elected the General Secretary of the Congress, and that Mr. F. W. Garnett be elected Treasurer.

The motion was carried by acclamation.

The President—Furthermore I beg to move that Mr. Share-Jones, Maj. Todd, Mr. A. L. Sheather and Prof. Wooldridge be elected Secretaries for the general meetings.

The motion was carried by acclamation.

The President—According to the statutes of the Congress, this meeting ought also, on the nomination of the Organizing Committee, to appoint one President, two Vice-presidents, and whatever is thought to be the necessary number of Secretaries for each of the Sections of the Congress. I must explain that the Organizing Committee has within the last few days been placed in a position of great difficulty in that connection, because unfortunately quite a considerable number of the foreign members whom we desired to elect as Presidents or Vice-presidents of sections are not here, and at the moment we are not prepared to nominate Vice-presidents of the different sections, as we are not sure who will be actually present. With the consent of the meeting it is suggested that the election of Vice-presidents of sections should be deferred until the second general meeting to-morrow, when it will be put down as the first item on the agenda.

The recommendations of the Organizing Committee with regard to the positions of President and Secretaries are as follows: That Dr. de Jong be elected President and Mr. Brittlebank and Mr. Cappurro be appointed Secretaries of Section I.

Of Section II. it is proposed that Prof. Mettam should be elected President, and Mr. Edwards, Mr. Sheather and Mr. Rucher Secretaries.

Of Section III. it is the desire of the Committee that Prof. Bang should be appointed President and that Mr. Minett and Dr. Lander be appointed Secretaries.

Of Section IV. it is recommended that Prof. Williams be appointed President, and that Mr. Hobday, Mr. Reynolds, Prof. Gofton and M. Barrier be appointed Secretaries.

Of Section V. it is proposed that M. Piot Bey be elected President, and Major Carr and Mr. Lawrence be appointed Secretaries.

May I take it that those recommendations are acceptable to the Congress?

The recommendations were carried by acclamation.

The President—With regard to this item of business, I have to intimate that apparently it will not be necessary to elect any officers to Section VI. It was a very small section as regards proceedings, and apparently there are no reports to submit to it, and therefore we do not propose to elect any officers to Section VI.

I will now call on the Honorary Secretary of the Organizing Committee to give to the members a short account of the preliminary work which was undertaken with regard to making the arrangements for this Congress.

*(Sir Stewart Stockman's report appears on page 694).*

Representatives of the various countries then addressed the Congress, thanking the Government and the Organizing Committee for the invitation that had been extended to them to attend. Those who spoke included M. Degive (Belgium), Dr. Paulo Parreiras Horta (Brazil), Mr. Keitera (Japan), Prof. Gavrillesco (Roumania), Dr. San Martin (Cuba), Dr. E. Perroncito (Italy), Dr. Holth (Norway), Dr. Vladimiroff (Russia), Dr. Edward I. Unanue (Argentina), Dr. S. P. Nystedt (Sweden), Mr. W. Littlewood (Egypt), and Dr. Eichhorn (United States of America).

Dr. B. Bang (Denmark), who received a very hearty welcome on rising to speak, said: Mr. President, ladies and gentlemen: As a delegate from the Danish Government, and on behalf of my colleagues from Denmark, I beg permission to express our warmest thanks for the kind welcome which has been extended to us, and to offer our sincerest wishes for the success of the Congress. But for the present serious circumstances, I feel convinced that

this jubilee Congress would have maintained the standard of its predecessors, nay, have surpassed it; and even now I sincerely hope that it will be successful, in as far as the great benefits that science, agriculture and public health can draw from the discussions of the important questions that are on the program will once more be made evident, and thus truly honor the memory of the English veterinarian, Mr. Gamgee, who, fifty years ago, initiated these International Veterinary Congresses. (Cheers.)

Dr. D. A. de Jong (Holland), who also received a very cordial reception, said: Mr. President, ladies and gentlemen: In the name of the Royal Dutch Government, which I have the honor to represent, I beg to express my thanks to the British Government for the kind invitation received by my country to attend this Congress. We would have come in larger numbers to meet the learned men of the English profession, and to show the Organizing Committee that we are much honored by the preparations that have been made for a successful Congress and for the cordial invitation which we have received, but circumstances have prevented it. On behalf of my country and of my Dutch colleagues, I again thank Great Britain and the British members of the profession for the kindness with which the Dutch members have been received. (Cheers.)

Mr. J. O. Bunster (Chili), said: Mr. President, ladies and gentlemen: As a representative of the Chilian Government, I beg to convey to you the Government's best wishes for a most successful Congress. Chili has not been represented at former Congresses if I remember rightly; but being on a continent which produces such a tremendous quantity of cattle for the food of the world, we take a great interest in the veterinary profession. It would appear grotesque, if it were not so serious, that we at the present moment are here trying to save the lives of animals, while the continent of Europe is doing its best to increase the mortality of human beings at a terrible rate. (Hear, hear). Let us hope that the war will not last long, and that England, as she is doing now for animals, will also take a very important part in saving millions of lives of human beings. (Cheers.)

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#### NEW YORK STATE VETERINARY MEDICAL SOCIETY.

The twenty-fifth annual meeting of the above society was called to order by President Switzer, on August 11, 1914, at Rochester. The address of welcome to the city of Rochester

was given by Mr. T. F. Magrath, secretary to Mayor Edgerton, who was to have welcomed the society to Rochester, but had been called away from the city. Dr. Robert W. Ellis, of New York City, responded to the address of welcome, after which President Switzer delivered a splendid, masterly address, which was very inspiring. The rest of the morning session was given to committee reports. At the beginning of the afternoon session, Dr. W. G. Hollingworth, as chairman of the committee on the twenty-fifth anniversary, gave the report for his committee, and, with his usual enthusiasm, suggested at the conclusion of his report, that as we were starting out on the second quarter of a century it was a good time to make advances that would contribute to the uplift of our profession and put us on record as standing for the principles of humanity that most of us practice, despite statements to the contrary in the lay press, calling attention to a recent one in the *New York Herald*. He proposed that the New York State Veterinary Medical Society, at its twenty-fifth annual convention, adopt as its slogan the humane treatment of animals. His proposal was just as enthusiastically received, and the resolutions committee later presented a resolution covering that point, which was adopted by the society, and forms part of this report to follow. After other committee reports a paper on *Colic* was presented by Dr. R. W. Ellis, which was discussed at some length. A paper on *Some Results from the Retesting of Tuberculous Cattle*, by Drs. J. G. Wills and Chas. Linch, was next presented, illustrated by lantern slides. Adjournment was then taken until evening, when Dr. Walter G. Hollingworth presented a paper entitled *The Advisability of a Live Stock Sanitary Board in New York State*. This paper seemed to arouse considerable enthusiasm amongst the members of the society, and the general feeling was undoubtedly in favor of the establishment of such a board. A committee was appointed by the president to look into the matter. Dr. R. R. Birch then presented a very carefully prepared paper entitled *A Study of Hog Cholera Transmission*, which was most interesting and instructive. The programme for the second day included a paper by Dr. V. A. Moore, on *The Phenomena of Infection and Immunity, The Preparation and Standardization of Vaccines, Antitoxins and Serums*, by Dr. C. P. Fitch, *Some Principles of Therapeutics*, by H. J. Milks, and an extemporaneous address by Prof. E. A. A. Grange, entitled, *Remarks Upon Recent Advances in Veterinary Education*.

Election of officers concluded the day's session, with the following results: Dr. P. A. Fish, Ithaca, was elected president; Dr. Otto Faust, Poughkeepsie, was elected vice-president, and Dr. H. J. Milks, Ithaca, was re-elected secretary-treasurer.

At the close of this, the second days' session, the members, visitors and ladies were directed to a car that had been chartered by the local committee to convey them to Ontario Beach, a pretty lakeside summer resort, where, after a sumptuous meal of fish, chicken, or similar good things, the evening was devoted to recreation and folly, in which the most staid person present participated to the full. The morning of the third day saw the opening of the clinic at Bartels' Sale Stable, on Lake avenue, where plenty of clinical material was on hand, and plenty of room, both inside and outside, to operate on it.

#### REPORT OF THE RESOLUTIONS COMMITTEE.

Whereas, The Directory of Practising Veterinarians of this State, issued by the Society, is now incomplete and practically exhausted; therefore, be it,

Resolved, That a committee be appointed to publish a new edition of this Directory, and that a copy shall be sent to each member of the Society.

Whereas, It is one of the duties of the Veterinarian to restore as far as possible sick and injured animals to health and usefulness; and

Whereas, In some cases such restoration requires medical and surgical treatment often of a difficult nature; therefore be it

Resolved, That this Society go on record in favor of the use of local and general anaesthesia whenever surgical operations of a painful nature are to be performed, and that in all details of medical treatment and care the comfort of the patient shall be considered as far as possible; and further be it

Resolved, That this Society shall at this, its 25th anniversary, adopt for its slogan, "The Humane Treatment of Animals."

Whereas, The prevention of disease within the State can be more effectively controlled by prophylactic measures, by intelligent sanitation and by a campaign of education among public health authorities, breeders and owners of live stock; be it

Resolved, That the New York State Veterinary Medical Society recommend a consideration of these principles with special reference to the proper construction and disinfection of common carriers, exhibition stables and public markets for the exchange of live stock.



Whereas, Various persons residing within the State of New York are now, and for greater or less periods of time prior hereto have been, engaged in the practice of veterinary medicine as defined by Sub. 6 of Sect. 210 of Art. 10 of Chap. 49 of the Laws of 1909, otherwise known as the Public Health Law of the State of New York, within said State, without being qualified so to do and without lawful registration, and in violation of the provisions of Art. 10 of Chap. 49 of the Laws of 1909, aforesaid, and also in violation of Sect. 1762 of the Penal Law of said State, or in violation of one or more of the provisions of said laws; and

Whereas, Section 224 of Article 10 of Chapter 49 of the Laws of 1909, aforesaid, confers authority upon any incorporated veterinary medical society of the State of New York to bring actions in the name of Counties wherein such violations occur for penalties therein provided; and

Whereas, The New York State Veterinary Medical Society now in session and to which this resolution is presented is duly incorporated under the laws of the State of New York as a veterinary medical society; and

Whereas, Provision has been made by said Society for the appointment of a committee of three of its members to act as a prosecuting committee, such committee to be appointed by the president at each annual meeting, for the purpose of investigating instances of illegal practice of said profession; now, therefore, be it

Resolved, That actions be instituted in the Supreme Court of the State of New York, or in such other court or courts within said State as may be proper, by said New York State Veterinary Medical Society, pursuant to the provisions of Section 224 of Article 10 of Chapter 49 of the Laws of 1909, aforesaid, in behalf of the County or Counties wherein such violations have occurred or may hereafter occur, against any one or more persons now practicing or who may hereafter practice veterinary medicine in violation of Article 10 of Chapter 49 of the Laws of 1909, aforesaid, or of Section 1762 of the Penal Law, aforesaid, to recover the penalties or obtain the relief thereby provided, or for such other penalties or relief as may hereafter be provided; and be it further

Resolved, That the Prosecuting Committee of said Society be and it hereby is authorized and empowered to institute and maintain such action or actions for said Society against any such person or persons and to do every act necessary to be done in



relation thereto, including the accumulation of evidence, employment of an attorney, in the event that this Society has not at the time an attorney in its employ, employment of necessary counsel, etc.; and be it further

Resolved, That the officers of said Society be and they hereby are authorized to verify in behalf of the Society any complaint or complaints, or other papers, which may be presented to them for verification in connection with any such action or actions, providing they have information to warrant their so doing; and be it further

Resolved, That the President of said Society be and he hereby is empowered and directed to appoint special members of the prosecuting committee, in addition to those already provided for, one to be selected from each county in which this society has a member or members residing, and that said appointees shall be members of said prosecuting committee for the purpose of doing any of the acts necessary to be done in obtaining information in regard to illegal practitioners residing or practising in their respective counties, procuring evidence against such persons, representing this society in court and doing any and all other acts necessary to be done in instituting and maintaining actions against such illegal practitioners as hereinbefore provided, such appointees, however, to act only in relation to matters arising within their respective counties and not otherwise.

Resolved, That this society extend its thanks to its officers and members of the Committee on Arrangements for their efforts in bringing about this successful meeting and entertainment of its members and guests.

ROBERT W. ELLIS, Chairman,  
G. T. STONE,  
P. A. FISH.

#### THE CLINIC.

*Case 1.* BAY GELDING—Roaring operation. Operator, Dr. J. N. Frost, assisted by Drs. Taylor and Ide. Cocain anesthesia. In recumbent position. Dr. W. B. Switzer demonstrated the use of his hobble on this animal.

*Case 2.* BAY MARE WITH QUITTOR—The animal was confined upon the operating table, cocain anesthesia used. Upon operating it was found that an open joint existed, so that it was thought best to destroy the animal. Operator, Dr. Frost, assisted by Dr. Ide.

*Case 3.* BULL BITCH—Spaying operation. H. M. C. ad-

ministered one-half hour before operation. Anesthesia very good. Median line operation. Drs. Milks and Webber.

*Case 4.* FISTULOUS WITHERS—Chloroform anesthesia administered by Dr. Currie. Operators, Drs. Ide and Morrow.

*Case 5.* Dr. Conkey demonstrated spaying of heifer.

*Case 6.* CAPONIZING ROOSTER—Dr. A. D. Moore.

*Case 7.* CAPONIZING ROOSTER—Dr. A. K. Dean.

*Cases 8 and 9.* Autopsies on two sheep affected with *Strongylus contortus*.

These are the cases as far as we were able to get them; but some others were also operated upon, which will be published with results in a later issue.

In closing this report of the twenty-fifth anniversary meeting of the New York State Veterinary Medical Society, we feel that we want to say a word of commendation to the committee of arrangements, for the very excellent program, both intellectual and social, which they had prepared and so successfully carried out, and a word of appreciation of the comfortable hotel accommodations and courteous treatment at the hands of the hotel management, and last but not least, to express our delight with the city of Rochester, at once a bustling business centre and a city of homes, the beauty and comfort of which are most striking.

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#### MISSOURI VETERINARY MEDICAL ASSOCIATION.

The above association held its 23d annual meeting at the Royal Hotel, Excelsior Springs, Mo., July 29 and 30, with about one hundred members present. The local committeeman, Dr. E. J. Johnston, had secured a covered roof garden seven stories up for the meeting, and the sessions were made very enjoyable by a delightful, refreshing breeze during the entire two days.

Several interesting matters were discussed at the business sessions, including a proposition by Dr. S. Stewart to amend the constitution so that all important issues and the selection of officers might be decided by a referendum vote of the entire membership. The proposition comes up for action at the next meeting.

The election of officers resulted in the selection of Dr. W. E. Martin, of Perry, as President; Dr. E. A. Van Antwerp, of Brookfield, as Vice-President; and Dr. Chas. D. Folse, of Kansas City, as Secretary-Treasurer. Thirty-seven new members were

taken in, which makes the membership now total one hundred and seventy-four. It was decided to hold the 1915 meeting in St. Louis in July.

An attractive program was offered, including a very interesting paper on "The Veterinarian's Humane Duty," by Dr. A. H. Holkenbrink, of St. Joseph; and a review of "The Problem of Liability in Practice," by Dr. F. F. Brown, of Kansas City. The spirited discussion of all the papers and reports of cases betokens an aggressive future for the association.

The afternoon of the second day was devoted to a diagnostic clinic made up of some twelve or thirteen cases of unusual character. One member was selected to take charge of a case and the other members gathered about to personally examine the case, to listen to the clinician's elucidation, to ask questions on mooted points or to contribute of their experiences with similar cases. The demonstration of castrating by Dr. E. L. Young, of Grandview, who operates on several thousand annually, proved attractive to those not accustomed to doing this operation. The clinical feature of the meeting proved highly interesting and very instructive.

On Wednesday evening a banquet was served in the dining room of the Royal Hotel, at which about one hundred veterinarians and ladies were present.

CHAS. D. FOLSE, Secretary-Treasurer.

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NOT BLOWING IT IN ON AUTOS.—Builders of horse-drawn vehicles in all parts of the country are finding a constantly increasing demand for their products. Many factories are crowded for room and are planning additions to their plants, and from various sections come reports of newly incorporated companies which will engage in the manufacture of various styles of wagons, buggies, etc.

While thousands of vehicles of all description are purchased annually by city deliveries, yet the best customers of the manufacturers of horse-drawn vehicles are found among the prosperous farmers. Reports indicate that crops of wheat, corn, oats, potatoes, cotton, hay and tobacco will be far above the average this fall, and the optimism of the farmers has already shown its effect among the wagon and buggy factories of the land.—(*The Horse Lover.*)

## NEWS AND ITEMS.

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### GRANULAR VENEREAL DISEASE HAS VITAL RELATION TO CONTAGIOUS ABORTION IN CATTLE.

*(From Office of Information, U. S. Dept. of Agriculture.)*

Washington, D. C.—The United States Department of Agriculture, in co-operation with Cornell University, will shortly publish a professional paper, Bulletin No. 106, entitled, "The Granular Venereal Disease and Abortion in Cattle." This disease may be defined as a chronic infection of the genital tract of cattle, manifesting itself in the form of granular or nodular elevations in the genital mucous membranes, chiefly of the vulva and less frequently of the vagina.

The importance of abortion and sterility in cows is rapidly becoming more acutely felt by breeders, according to the bulletin, and is each year playing a more serious part in the national economy. By interfering more and more with the reproductive powers of cows, these diseases exert an unfavorable influence upon the production of meat, milk and dairy products, decreasing the supply and increasing the cost.

Innumerable reasons have been assigned to account for abortion and sterility in cows. Abortion has been regarded as the result of blows, goring, kicks, slips, falls, various feeds, water, drugs, etc., and finally, when the abortions are numerous, to contagion. Sterility has been attributed also to a great variety of causes—to the character of the feed or water, to poverty, and over-fatness, and, as with abortion, when the cases are numerous, to contagion.

Veterinarians who have investigated abortion in cows in recent years have agreed that in a very large percentage of cases it is due solely to contagion.

The report then gives, in detail, the results of a large number of examinations of live cattle, supplemented by a large number of post-mortem examinations at slaughter houses. These examinations have shown the granular venereal disease to be present in a large number of cases of abortion.

The conclusions of the author as to the effect of this disease are as follows:

## METHODS OF COMBATING ABORTION.

The granular venereal disease of cattle is, so far as known, universally distributed. From clinical observation it has a vital relation to contagious abortion. It is incurable in the present state of our knowledge, but may be greatly decreased in virulence.

The ordinary if not sole avenue of the entrance of the infection of contagious abortions is the genital canal, and the invasion antedates the sealing of the uterus, which ordinarily occurs within 30 days after conception.

In the present state of our knowledge little or nothing can be done to prevent abortion once the pregnant uterus is sealed and the infection of contagious abortion exists within the hermetically sealed cavity.

By systematic disinfection of the genitalia immediately following abortion or premature birth, and also in retained after-birth and kindred infections of the uterus, the affected animals may be largely guarded against future sterility and abortion. It is even more important that the vaginae of heifers, whether virgin or previously bred, and cows shall be systematically disinfected for a period before and after breeding, until conception is assured.

It is equally important that the genital organs of breeding bulls be kept clean by regular disinfection, including washing immediately prior to and after service.

Most important of all, breeders of valuable cattle should institute definite, energetic and permanent efforts to guard newborn calves simultaneously against the three great dairy scourges—calf scours and pneumonia, abortion and sterility and tuberculosis.

## PLAN FOR BREEDING SOUND ANIMALS.

The following are the author's recommendations for the breeding of sound animals:

We would outline the following plan for the breeders of pedigreed and valuable dairy cattle with a view to the production of cleaner and more efficient herds.

1. The construction or arrangement of independent maternity and calf nursery stables embodying all modern requirements for ventilation, light, heat, convenience for disinfection and ample facilities for the exclusion of flies. The stable should provide sufficient individual stalls for all calving cows and individual stalls for calves until at least three months old.



2. A cow which is about to calve should be well cleaned, and her posterior parts disinfected, after which she should be placed in a clean stall some days prior to expected parturition. Pending parturition the stall should be kept scrupulously clean and well disinfected. The tail, vulva, buttocks and udder should be disinfected twice daily. In order to avoid the danger of infection to the calf while passing through the vagina of the cow during birth, either by the infection of white scours, the granular venereal disease or other malady, the vagina should be irrigated daily with a mild disinfectant such as 0.5 per cent. Lugol's solution. Such attention to the vagina also tends to carry away any infections within the vagina which immediately after the opening of the cervical canal of the uterus at the time of calving may otherwise drop into the uterine cavity and there establish disease.

3. When the calf is born it should be received upon a clean antiseptic sheet and at once carried to a clean calf stall and rubbed dry. If it is desired to allow the calf to remain temporarily with the cow, great care should be taken to see that the bedding is kept clean.

After the calf has been dried, if not earlier, the stump of the navel cord should be disinfected. It should not be ligated. Prepare a warm 1 to 1,000 solution of corrosive sublimate, fill a goblet or cup with it, and, having the calf held in a standing position, press the vessel against the floor of the belly so that the stump of the naval cord is submerged in the disinfecting fluid. Retain it in this position for at least 10 minutes. Immediately afterwards dust the stump of the cord over liberally with a disinfecting desiccating powder, as alum and camphor, and repeat every 30 minutes until the stump is dry.

The body openings (mouth, nostrils, vulva of heifer and sheath of bull calf) should be disinfected with a 0.5 per cent. Lugol's solution.

4. Prior to drawing milk from the dam or other cow for feeding the calf, or permitting the calf to suck, the udder and adjacent parts of the cow should be thoroughly disinfected. The milk should be drawn in a sterile vessel under the strictest cleanliness. If the milk is from a cow not known to be free from tuberculosis, it should be sterilized before feeding. Individual feeding vessels should be used and regularly sterilized.

When calves have reached 3 months of age, it may usually be fairly determined if they are free from disease, in which case they may be handled in groups. These, however, should be kept

as small as economically practicable until the heifers have calved and are ready for the dairy. Even then the larger the number of animals in one stable the greater the risk of infection and the more destructive will it be if it gains entrance.

5. When breeding time for the heifer grown under the foregoing conditions is approaching, we would advise that her vagina be douched once daily for at least three weeks before breeding, at first with 0.5 per cent. Lugol's solution, and thereafter each second day with a 0.25 per cent. solution. The douching should extend over at least one estrual period, or 21 days prior to breeding, and followed for an equal time after breeding, or until it is determined she is pregnant. The bull should preferably have been grown in the same manner as the heifers he is to serve and his genitals douched in a similar way.

## ACCOUNT OF THE NINTH INTERNATIONAL VETERINARY CONGRESS AT THE HAGUE, 1909.

PUBLISHED BY REQUEST OF PERMANENT SECRETARY.

### *Expenses.*

Printing of reports, etc.....Gld.	17,363.145
Translations .....	767.62
Reports of meetings, stenography.....	1,861.225
Officers .....	2,423.055
Postage, telegrams, despatch.....	2,243.18
Traveling and lodging expenses.....	782.00
Collection of amounts of subscription.....	108.945
Remittance .....	44.38
Receptions, entertainments, secretary's office, administration .....	12,759.445
Excursions .....	1,871.14
Reception on the occasion of the inauguration of the Thomassen monument.....	201.71
Restitution of subscriptions.....	21.50
Permanent committee .....	516.995
Unexpected expenses .....	225.71
	<hr/>
Gld.	41,190.05

*Receipts.*

1,478 ordinary members.....	Gld.	14,780.00
84 extraordinary members.....		420.00
194 ladies members.....		485.00
Subventions of Dutch Associations.....		3,497.95
Transvaal Veterinary Medical Association.....		120.15
Department of Agriculture of South Africa.....		38.05
Printed papers .....		167.40
Interest .....		774.84
Unexpected receipts .....		32.80
Subvention of the Dutch Government.....		20,873.86
	Gld.	41,190.05

*N. B.*—Extraordinary subvention of the Dutch Government for the installation of the fixed Secretary's office at the Hague, Gld. 2,626.14.

THE MINNESOTA STATE FAIR AND EXPOSITION POPULARIZING THE HORSE, SAYS T. C. SIMPSON, SECRETARY.—Have you noticed anything new and strange in passing through the parks and over the boulevards this spring? Something which takes you back a few years and makes your blood quicken and your eyes sparkle, as of old? As I pen this letter, and look out of the window down Midway boulevard leading into Como Park, St. Paul's most beautiful pleasure ground, I see passing a beautiful park horse hitched to a spider phaeton being driven by one of St. Paul's most charming young ladies.

It looks like old times, and it is quite noticeable in our parks and upon our boulevards this spring, that the old love for the horse—the keen pleasure and delight in riding or driving, a beautiful thoroughbred horse, with head up and ears forward, is again taking hold. But like the tender plant that has been trampled under foot, this reviving of the old-time love for the driving and saddle horse must be nursed along carefully by those in a position to promote shows, the owners and breeders, until such time that it has again gained a firm grasp upon the American horse-loving people.

The Minnesota State Fair and Exposition has enlisted in the movement to again popularize the horse as a delightful means of recreation, as well as a beast of burden.—(*The Horse Lover.*)

# VETERINARY MEDICAL ASSOCIATION MEETINGS.

In the accompanying table the data given is reported by many Secretaries as being of great value to their Associations, and it is to be regretted that some neglect to inform us of the dates and places of their meetings.

Secretaries are earnestly requested to see that their organizations are properly included in the following list :

Name of Organization.	Date of Next Meeting.	Place of Meeting.	Name and Address Secretary.
Alabama Veterinary Med. Ass'n.....	Mar. 5-6-7, 1914 .....	Auburn.....	C. A. Cary, Auburn.
Alumni Ass'n. N. Y.-A. V. C.....	June 10, 1915.....	141 W. 54th St.	P. K. Nichols, Port Richmond, N.Y.
American V. M. Ass'n.....	Dec., 28-31, 1914 .....	New Orleans, La	Nelsen S. Mayo, 4753 Ravenswood Ave., Chicago, Ill.
Arkansas Veterinary Ass'n.....	January 5-6, 1915 .....	Little Rock.....	R. M. Gow, Fayetteville.
Ass'n Médéciale Veterinaire Française. "Laval"	1st and 3d Thur. of each month.....	Lec. Room, Laval Un'y, Mon.	J. P. A. Houde, Montreal.
B. A. I. Vet. In. A., Chicago.....	2d Fri. each month.....	Chicago.....	H. A. Smith, Chicago, Ill.
B. A. I. Vet. In. A., So. Omaha.....	3d Mon. each month.....	S. Omaha, Neb.	E. J. Jackson, So. Omaha.
Buchanan Co. Vet. Ass'n.....	Monthly.....	St. Joseph.....	F. W. Caldwell, St. Joseph, Mo.
California State V. M. Ass'n.....	December 10, 1913.....	San Francisco.....	John F. McKenna, Fresno.
Central Canada V. Ass'n.....	Feb. and July.....	Ottawa.....	A. E. James, Ottawa.
Central N. Y. Vet. Med. Ass'n.....	June and Nov.....	Syracuse.....	W. B. Switzer, Oswego.
Chicago Veterinary Society.....	2d Tues. each month.....	Chicago.....	D. M. Campbell, Chicago.
Colorado State V. M. Ass'n.....	January, 1914.....	Denver.....	I. E. Newsom, Ft. Collins.
Connecticut V. M. Ass'n.....	Aug. 4, 1914.....	Waterbury.....	B. K. Dow, Willimantic.
Delaware State Vet. Society.....	Jan. Apl., July, Oct.....	Wilmington.....	A. S. Houchin, Newark, Del.
Essex Co. (N. J.) V. M. A.....	3d Mon. each month.....	Newark, N. J.....	J. F. Carey, East Orange, N. J.
Genesee Valley V. M. Ass'n.....	2d week, July, 1913.....	Rochester.....	J. H. Taylor, Henrietta.
Georgia State V. M. A.....	Dec. 22-23, 1913.....	Atlanta.....	P. F. Bahnsen, Americus.
Hamilton Co. (Ohio) V. A.....	July 17, 1914.....	E. St. Louis.....	Louis P. Cook, Cincinnati.
Illmo Vet. Med. Ass'n.....	July 15, 1914.....	Springfield.....	L. B. Michael, Collinsville, Ill.
Illinois State V. M. Ass'n.....	Jan. 14, 1914.....	Indianapolis.....	L. A. Merillat, Chicago.
Indiana Veterinary Association.....	Pending.....	Pending.....	A. F. Nelson, Indianapolis.
Iowa Veterinary Ass'n.....	Jan. 6-7-8, 1914.....	Manhattan.....	C. H. Stange, Ames.
Kansas State V. M. Ass'n.....	Oct. & Feb. each year.....	Lexington.....	J. H. Burt, Manhattan.
Kentucky V. M. Ass'n.....	2d Tues. each month.....	Philadelphia.....	Robert Graham, Lexington.
Keystone V. M. Ass'n.....	Pending.....	Pending.....	Cheston M. Hoskins.
Lake Erie V. M. Association.....	Sept., 1914.....	Lake Charles.....	Phil. H. Fulstow, Norwalk, Ohio.
Louisiana State V. M. Ass'n.....	October, 1914.....	Lewiston.....	Hamlet Moore, New Orleans, La.
Maine Vet. Med. Ass'n.....	4th Wed. each month.....	Baltimore.....	H. B. Wescott, Portland.
Maryland State Vet. Society.....	Feb. 3, 4, 1914.....	Young's, Boston.....	H. H. Counselman, Sec'y.
Massachusetts Vet. Ass'n.....	July 8-9, 1914.....	Lansing.....	W. T. Pugh, Southbridge.
Michigan State V. M. Ass'n.....	1914.....	Northfield.....	W. A. Ewalt, Mt. Clemens.
Minnesota State V. M. Ass'n.....	Jan. 27, 28, 29, 1914.....	Vicksburg.....	G. Ed. Leech, Winona.
Mississippi State V. M. Ass'n.....	Semi-Annually.....	Kansas City, Mo.....	J. D. Townsend, Louisville.
Missouri Vet. Med. Ass'n.....	July, 1915.....	Galesburg, Ill.....	Hal. C. Simpson, Denison, Ia.
Missouri Vet. Med. Ass'n.....	Sept. 24, 25, 1913.....	St. Louis.....	G. E. McIntyre, Alexis, Ill.
Montana State V. M. A.....	2d Mon. Aug., 1914.....	Helena.....	Chas. D. Tolse, Kansas City.
Natl Ass'n B. A. I. Employees.....	1st Mo. & Tu., Dec. '13.....	Lincoln, Neb.....	A. D. Knowles, Livingston.
Nebraska V. M. Ass'n.....	June 23, 1914.....	Lincoln, Neb.....	S. J. Walkley, 185 N. W. Ave. Milwaukee, Wis.
New York S. V. M. Soc'y.....	Week of July 20, 1914.....	Ilthaca.....	Carl J. Norden, Nebraska City.
North Carolina V. M. Ass'n.....	Nov. 1913.....	Wilson.....	H. J. Milks, Ithaca, N. Y.
North Dakota V. M. Ass'n.....	Jan. 14, 15, 1914.....	Fargo.....	J. P. Spoon, Burlington.
North-Western Ohio V. M. A.....	Annually.....	Delphos.....	A. F. Schalk, Agricultural College.
Ohio State V. M. Ass'n.....	Annually.....	Columbus.....	E. V. Hover, Delphos.
Ohio Soc. of Comparative Med.....	Annually.....	Upper Sandusky.....	Reuben Hilty, Toledo.
Ohio Valley Vet. Med. Ass'n.....	Fall, 1913.....	Oklahoma City.....	F. F. Sheets, Van Wert, Ohio.
Oklahoma V. M. Ass'n.....	1st Week in Feb. 1914.....	Toronto.....	J. C. Howard, Sullivan.
Ontario Vet. Ass'n.....	Mar. 3, 4, 1914.....	Philadelphia.....	C. E. Steel, Oklahoma City.
Pennsylvania State V. M. A.....	Call of President.....	Manila.....	L. A. Willson, Toronto.
Phillipine V. M. A.....	4th Tues. each month.....	Portland, Ore.....	John Reichel, Glencliden.
Portland Vet. Med. Ass'n.....	Jan. and June.....	Mon. and Que.....	David C. Kretzer, Manila.
Province of Quebec V. M. A.....	Pending.....	Providence.....	Sam. B. Foster, Portland, Ore.
Rhode Island V. M. Ass'n.....	Aug. 4-5-6, 1914.....	Pending.....	Gustave Boyer, Rigaud, P. Q.
South Carolina Ass'n of Veter'ns.....	1st Wed. fol. the 2d Sun. each month.....	Salem.....	J. S. Pollard, Providence.
South Illinois V. M. and Surg. Ass'n.....	Dec. 16, 1914.....	St. Louis.....	B. K. McInnes, Charleston.
St. Louis Soc. of Vet. Inspectors.....	Pending.....	Reading.....	F. Hockman, Iola.
Sebuykill Valley V. M. A.....	Jan. Apl., July, Oct.....	Philadelphia.....	Wm. T. Conway, St. Louis, Mo.
Soc. Vet. Alumni Univ. Penn.....	4th Tues. each month.....	Madison.....	W. G. Huyett, Wernersville.
South Dakota V. M. A.....	Nov. 1913.....	Los Angeles.....	B. T. Woodward, Wash'n, D. C.
Southern Aux. of Cal. S. V. M. Ass'n.....	Nov. 1913.....	Nashville.....	S. W. Allen, Watertown.
South St. Joseph Ass'n of Vet. Insp.....	2d Thu. each month.....	College Station.....	J. A. Dell, Los Angeles.
Tennessee Vet. Med. Ass'n.....	Spring of 1914.....	St. P.-Minneapolis.....	H. R. Collins, South St. Joseph.
Texas V. M. Ass'n.....	3d Wed. each month.....	514 9th St., N.W.....	O. L. McMahon, Columbia.
Twin City V. M. Ass'n.....	1st Sat. each month.....	Wash'ton, D. C.....	Allen J. Foster, Marshall.
Utah Vet. Med. Ass'n.....	Feb. & July each yr.....	Winnipeg.....	M. H. Reynolds, St. Paul, Minn.
Vermont Vet. Med. Ass'n.....	July 9, 1914.....	Montclair.....	E. J. Coburn, Brigham City.
Veterinary Ass'n of Alberta.....	1st Wed. each month.....	141 W. 54th St.....	G. T. Stevenson, Burlington.
Vet. Ass'n Dist. of Columbia.....	Monthly.....	Jersey City.....	C. H. H. Sweetapple, For. Saakat-chewan, Alta., Can.
Vet. Med. Ass'n, Geo. Wash. Univ.....	July 9-10, 1914.....	Staunton.....	M. Page Smith, Washington, D. C.
Vet. Ass'n of Manitoba.....	1st & 3d Fri. Eve.....	Pullman.....	J. M. Cashell, 2115 14th Street.
Vet. Med. Ass'n of N. J.....	June, 1915.....	Yakima.....	Wm. Hilton, Winnipeg.
V. M. Ass'n, New York City.....	June 24, 1914.....	Buffalo.....	E. L. Loblein, New Brunswick.
Veterinary Practitioners' Club.....	3d Thu. each month.....	Pittsburgh.....	R. S. MacKellar, N. Y. City.
Virginia State V. M. Ass'n.....	Feb. 10, 11, 1914.....	Milwaukee.....	T. F. O'Dea Union Hill, N. J.
Washington State Col. V. M. A.....	June, Sept., Dec., Mar.....	York.....	Geo. C. Faville, North Emporia.
Washington State V. M. A.....			R. J. Donohue, Pullman.
Western N. Y. V. M. A.....			Carl Cosier, Bellingham.
Western Penn. V. M. Ass'n.....			W. E. Fritz, 355 Jefferson St., Buffalo
Wisconsin Soc. Vet. Grad.....			Benjamin Gunner, Sewickley.
York Co. (Pa.) V. M. A.....			W. W. Arszberger, Watertown.
			E. S. Bausticker, York, Pa.

*Adm. Rep.*

## PUBLISHERS' DEPARTMENT.

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ALL THE CONDITIONS IN WHICH TALLIANINE ARE INDICATED are liable to occur as the autumn sets in, and if not stocked up, better do so, as it may be difficult to procure *this* winter. Get the address from page 7 (adv. dept.) and write Walter F. Sykes & Co., mentioning the REVIEW.

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EXTRA SPECIAL OFFER FOR A LIMITED TIME ONLY. Sharp & Smith, whose advertisement appears on page 8 (adv. dept.) of this issue, make a special offer to veterinarians on syringes and thermometers which should not pass unnoticed. Write them in regard to it and ask for their 400 page veterinary catalogue "G," 10th edition. Mention the REVIEW when you write.

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A VETERINARIAN WITHOUT A HYPODERMIC SYRINGE would be difficult to find in this age of progression. But the syringe after all is only the gun and the ammunition is the essential factor; for no matter how good the syringe, if the tablets do not contain the active principles in proper form. Parke, Davis & Co. have a *Brochure on Hypodermic Tablets* that is most interesting. Write for it, mentioning the REVIEW.



